

UNCLASSIFIED

AD NUMBER	
ADB807153	
CLASSIFICATION CHANGES	
TO:	unclassified
FROM:	confidential
LIMITATION CHANGES	
TO:	Approved for public release; distribution is unlimited.
FROM:	Distribution authorized to DoD only; Administrative/Operational Use; 13 APR 1948. Other requests shall be referred to National Aeronautics and Space Administration, Washington, DC. Pre-dates formal DoD distribution statements. Treat as DoD only.
AUTHORITY	
NACA research abstracts no. 56 dtd 13 Jan 1954; NASA TR Server website	

THIS PAGE IS UNCLASSIFIED

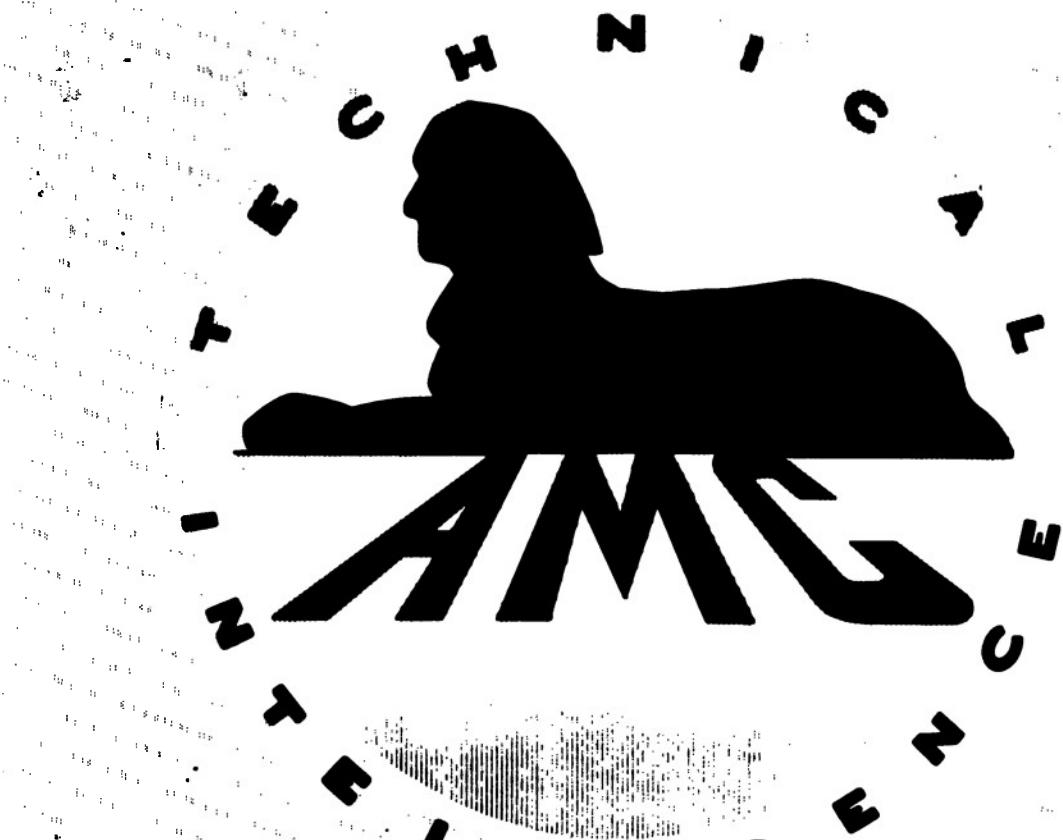
Reproduction Quality Notice

This document is part of the Air Technical Index [ATI] collection. The ATI collection is over 50 years old and was imaged from roll film. The collection has deteriorated over time and is in poor condition. DTIC has reproduced the best available copy utilizing the most current imaging technology. ATI documents that are partially legible have been included in the DTIC collection due to their historical value.

If you are dissatisfied with this document, please feel free to contact our Directorate of User Services at [703] 767-9066/9068 or DSN 427-9066/9068.

Do Not Return This Document
To DTIC

**Reproduced by
AIR DOCUMENTS DIVISION**



HEADQUARTERS AIR MATERIEL COMMAND

WRIGHT FIELD, DAYTON, OHIO

The
U.S. GOVERNMENT

IS ABSOLVED

FROM ANY LITIGATION WHICH MAY

ENSUE FROM THE CONTRACTORS IN -

BRINGING ON THE FOREIGN PATENT

RIGHTS WHICH MAY BE INVOLVED.

REEL - C

783

A.T.I.

20895

CONFIDENTIAL

20895

Shitcomb, R. T.

Aerodynamics (2)

Wings and Airfoils (6)

RW LSA308

Ailerons - Aerodynamics (03201); Wings

Swept-back - Aerodynamics (99305.2); Wings, Swept-forward - Aerodynamics (99307.3);*

A compilation of the pressures measured on a wing and aileron with various amounts of sweep in the Langley 5-foot high-speed tunnel

National Advisory Committee for Aeronautics, Washington, D. C.

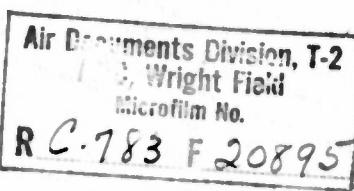
U.S. Eng.

Conf'd'l Apr'46 57

tables, drwg

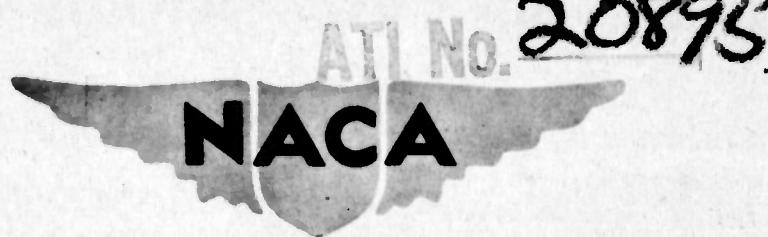
A compilation is presented, in tabular form, of pressures measured on the surface of a thin-high-aspect-ratio wing at high subsonic Mach numbers. The wings possessed no sweep and 30° and 45° of sweepback and sweepforward. Each table presents the pressure coefficients obtained for the upper and lower surfaces of the wing with a given sweep, aileron deflections, and angle of attack at the various test Mach numbers. Only the results relatively free of wind-tunnel chocking effects have been included.

NOTE: Requests for copies of this report must be addressed to: N.A.C.A.,
Washington, D. C.



CONFIDENTIAL

Copy No. 38
RM No. L8A30a



RESEARCH MEMORANDUM

A COMPILATION OF THE PRESSURES MEASURED ON A WING
AND AILERON WITH VARIOUS AMOUNTS OF SWEEP
IN THE Langley 8-FOOT HIGH-SPEED TUNNEL

By

Richard T. Whitcomb

Langley Memorial Aeronautical Laboratory
Langley Field, Va.

CLASSIFIED DOCUMENT

This document contains classified information affecting the National Defense of the United States within the meaning of the Espionage Act, Title 18, U.S. Code, Section 7, and it is the responsibility of the recipient in any manner to an unauthorized person is prohibited by law. Information so classified may be imparted only to persons in the military services serving overseas in the United States, appropriate civilian officers and employees of the Federal Government who have a legitimate interest therein, and to United States citizens of known loyalty and discretion who of necessity must be informed thereof.



NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

WASHINGTON

April 13, 1948

CONFIDENTIAL

NACA RM No. L8A30a

CONFIDENTIAL

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

RESEARCH MEMORANDUM

A COMPILATION OF THE PRESSURES MEASURED ON A WING
AND AILERON WITH VARIOUS AMOUNTS OF SWEEP
IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL

By Richard T. Whitcomb

SUMMARY

A compilation is made in tabular form of all the pressures measured on a thin high-aspect-ratio wing and aileron with no sweep and with 30° and 45° of sweepback and sweepforward at high subsonic Mach numbers in the Langley 8-foot high-speed tunnel.

INTRODUCTION

Very little detailed information as to the aerodynamic loads on swept wings at high subsonic speeds has been available until very recently. In order to obtain some information on such loads, as well as to develop a more complete understanding of the flow around swept wings in this speed range, extensive pressure measurements have been made on the surface of a thin high-aspect-ratio wing with no sweep and with 30° and 45° of sweepback and sweepforward and several aileron deflections in conjunction with a slender midwing fuselage in the Langley 8-foot high-speed tunnel.

From the pressure data obtained, normal-force, pitching-moment, bending-moment, and twisting-moment coefficients, spanwise variations of load and twisting moment, and ratios of the normal-force coefficients for the fuselage to those for the wing have been determined. These results are presented in references 1 and 2. The analyses presented in the references, being limited in extent, did not require reference to the large amount of detailed pressure data obtained during the investigation and none of these data are included in those reports. However, such data is useful in the prediction of the local aerodynamic loads on configurations similar to those investigated at high subsonic Mach numbers. Therefore, the pressure data that were measured on the wing during this investigation at all conditions for which over-all characteristics are given in references 1 and 2 are presented in tabular form herein. As in the case of the over-all characteristics, the data have not been corrected for the small tunnel-wall interference effects and only the results relatively free of wind-tunnel choking effects have been included. No attempt has been made to analyze any of the data presented.

CONFIDENTIAL

SYMBOLS

The symbols used are defined as follows:

- Δ sweep angle between line perpendicular to plane of symmetry and quarter-chord line of unswept wing, positive for sweepback, negative for sweepforward
- δ_{a_n} nominal aileron deflection, measured in plane perpendicular to aileron hinge axis; positive for down deflection
- α geometric angle of attack
- P pressure coefficient $\left(\frac{P - P_0}{\frac{1}{2} \rho V^2} \right)$
- p local static pressure
- P_0 static pressure in stream
- ρ mass density of stream
- V velocity of stream

APPARATUS

For the unswept condition the wing model has an NACA 65-210 airfoil section, no twist or dihedral, and exclusive of the fuselage, an aspect ratio of 9.0, and a taper ratio (root chord/tip chord) of 2.5. The 20-percent-chord straight-sided, plain aileron extends from the 60-percent-semispan station to the end of the straight part of the trailing edge as shown in figure 1. Approximately 20 static pressure orifices were placed at each of 8 stations along the semispan in lines perpendicular to the quarter-chord line of the unswept wing as shown in figure 1.

The model was supported in the tunnel by means of a vertical steel plate as described in reference 1. Swept configurations were obtained by rotating the model with respect to the support plate. Revised tips were added for each sweep. Plan forms of the wing outboard of the fuselage with the various amounts of sweep are presented in figure 1. The aspect ratios of the wings outboard of the fuselage are 8.5, 7.0, 4.7, 6.3, and 4.1 for 0° , 30° , 45° , -30° , and -45° of sweep, respectively. Other

dimensions for the various wing configurations and the dimensions of the fuselage are presented in reference 1.

RESULTS

All the pressures measured on the wing for the geometric conditions tabulated in the index preceding the table are presented in pressure coefficient form in tables 1 to 78. Each table presents the pressure coefficients obtained for the upper and lower surfaces of the wing with a given sweep, aileron deflection, and angle of attack at the various test Mach numbers. The data obtained at each of the eight chordwise measurement stations are placed in separate horizontal groups in each table. The designations of the chordwise stations at which the data in a given group were obtained is indicated in the upper left corner of each group in the tables. The spanwise locations of the designated stations from the plane of symmetry along the swept semispan in percent of the swept semispan for each of the sweep angles are indicated in figure 1 and the following table:

Station designation	$\Lambda = 0^\circ$	$\Lambda = 30^\circ$	$\Lambda = 45^\circ$	$\Lambda = -30^\circ$	$\Lambda = -45^\circ$
A	11.0	12.7	14.4	7.6	5.2
B	20.0	21.3	22.9	16.3	14.0
C	30.0	30.9	32.4	26.0	23.7
D	43.0	43.4	44.7	38.6	36.4
E	56.0	55.8	57.0	51.1	49.1
F	64.0	63.5	64.7	58.9	56.9
G	80.0	78.8	79.8	74.4	72.5
H	95.0	93.2	94.0	88.9	87.1

The chordwise locations of the orifice tubes at each of the measurement stations in percent of the local chord are indicated in tables 1 to 78.

In most cases the nominal aileron angles listed are the same as the aileron angles actually present during the tests. For the conditions at which they differ, the actual angles may be obtained from reference 2.

Langley Memorial Aeronautical Laboratory
 National Advisory Committee for Aeronautics
 Langley Field, Va.

CONFIDENTIAL

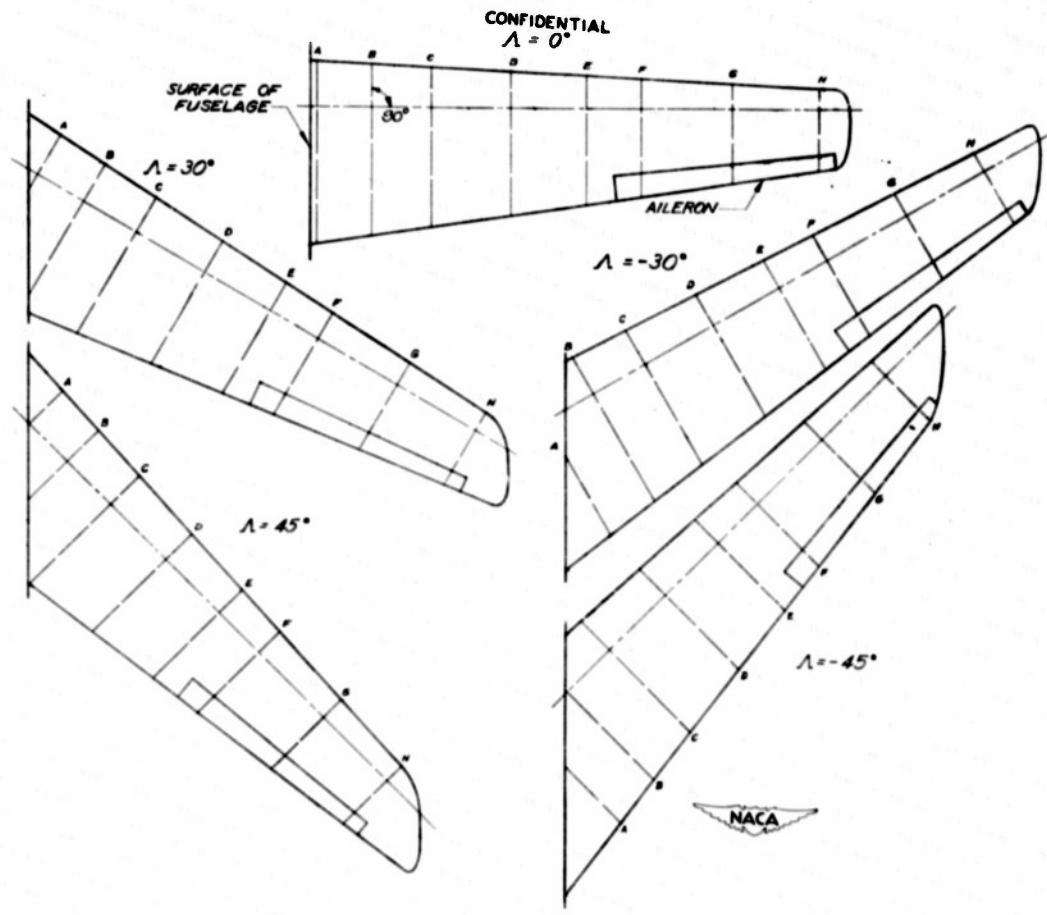
CONFIDENTIAL

NACA RM No. 18A30a

REFERENCES

1. Whitcomb, Richard T.: An Investigation of the Effects of Sweep on the Characteristics of a High-Aspect-Ratio Wing in the Langley 8-Foot High-Speed Tunnel. NACA RM No. L6J01a, 1946.
2. Luoma, Arvo A., Bielat, Ralph P., and Whitcomb, Richard T.: High-Speed Wind-Tunnel Investigation of the Lateral-Control Characteristics of Plain Ailerons on a Wing with Various Amounts of Sweep. NACA RM No. L7I15, 1947.

CONFIDENTIAL



CONFIDENTIAL

FIGURE 1.-LOCATION OF ORIFICE STATIONS.

CONFIDENTIAL

INDEX

[All values are in degrees]

Table	Λ	δ_{a_n}	α	Table	Λ	δ_{a_n}	α
1	0	0	-2	40	30	5.0	4
2	0	0	0	41	30	5.0	7
3	0	0	2	42	30	10.0	-2
4	0	0	4	43	30	10.0	0
5	0	0	7	44	30	10.0	2
6	0	0	10	45	30	10.0	4
7	30	0	-2	46	30	10.0	7
8	30	0	0	47	45	-9.4	-2
9	30	0	2	48	45	-9.4	2
10	30	0	4	49	45	-9.4	7
11	30	0	7	50	45	10.0	-2
12	30	0	10	51	45	10.0	2
13	45	0	-2	52	45	10.0	7
14	45	0	2	53	-30	-10.0	-2
15	45	0	7	54	-30	-10.0	0
16	45	0	10	55	-30	-10.0	2
17	-30	0	-2	56	-30	-10.0	4
18	-30	0	0	57	-30	-10.0	7
19	-30	0	2	58	-30	-5.0	-2
20	-30	0	4	59	-30	-5.0	0
21	-30	0	7	60	-30	-5.0	2
22	-30	0	10	61	-30	-5.0	4
23	-45	0	-2	62	-30	-5.0	7
24	-45	0	2	63	-30	5.0	-2
25	-45	0	7	64	-30	5.0	0
26	-45	0	10	65	-30	5.0	2
27	30	-10.0	-2	66	-30	5.0	4
28	30	-10.0	0	67	-30	5.0	7
29	30	-10.0	2	68	-30	10.0	-2
30	30	-10.0	4	69	-30	10.0	0
31	30	-10.0	7	70	-30	10.0	2
32	30	-5.1	-2	71	-30	10.0	4
33	30	-5.1	0	72	-30	10.0	7
34	30	-5.1	2	73	-45	-10.0	-2
35	30	-5.1	4	74	-45	-10.0	2
36	30	-5.1	7	75	-45	-10.0	7
37	30	5.0	-2	76	-45	9.8	-2
38	30	5.0	0	77	-45	9.8	2
39	30	5.0	2	78	-45	9.8	7

CONFIDENTIAL

TABLE 1

 $[A = 0^\circ, \delta_{\alpha_0} = 0^\circ, \alpha = -\theta^\circ]$

CONFIDENTIAL

Tube	Ver-	Sur-	UPPER SURFACE			LOWER SURFACE		
			ant	chord	Mach Number	0.60	0.75	0.80
A 1	2.0	0.410	0.475	0.492				
2	6.0	.125	.140	.176				
3	15.0	-.091	-.086	-.080				
4	27.5	-.205	-.237	-.247				
5	45.0	-.295	-.305	-.300				
6	59.0	-.295	-.305	-.300				
7	59.0	-.295	-.305	-.300				
8	67.5	-.065	-.065	-.064				
9	77.5	-.065	-.065	-.064				
10	87.5	.005	.020	.027				
11	96.0	.050	.070	.080				
12	2.0	.145	.160	.190				
13	6.0	.160	.185	.215				
14	15.0	.104	.107	.091				
15	27.5	-.260	-.297	-.305				
16	45.0	-.350	-.431	-.495				
17	50.0	-.357	-.440	-.520				
18	59.0	-.305	-.370	-.410				
19	67.5	-.265	-.330	-.357				
20	77.5	-.065	-.072	-.069				
21	86.0	.055	.076	.068				
22	95.3	.140	.167	.180				
23	2.0	.145	.160	.190				
24	6.0	.120	.137	.140				
25	15.0	-.117	-.110	-.093				
26	27.5	-.270	-.310	-.320				
27	45.0	-.360	-.440	-.520				
28	50.0	-.365	-.450	-.525				
29	59.0	-.312	-.370	-.400				
30	67.5	-.265	-.320	-.350				
31	77.5	-.067	-.078	-.072				
32	86.0	.061	.060	.078				
33	95.3	.137	.150	.168				
34	2.0	.145	.160	.190				
35	15.0	-.105	-.110	-.095				
36	27.5	-.272	-.310	-.320				
37	45.0	-.370	-.450	-.520				
38	50.0	-.375	-.460	-.530				
39	59.0	-.320	-.380	-.420				
40	67.5	-.265	-.320	-.350				
41	77.5	-.065	-.078	-.072				
42	87.5	.055	.056	.072				
43	94.2	.126	.150	.169				
44	2.0	.145	.160	.190				
45	6.0	.109	.147	.172				
46	15.0	-.195	-.210	-.195				
47	27.5	-.270	-.305	-.305				
48	45.0	-.360	-.440	-.510				
49	50.0	-.365	-.450	-.520				
50	59.0	-.312	-.377	-.411				
51	67.5	-.265	-.320	-.350				
52	77.5	-.065	-.078	-.072				
53	86.0	.055	.056	.072				
54	95.3	.126	.150	.169				
55	2.0	.145	.160	.190				
56	6.0	.120	.145	.167				
57	15.0	-.105	-.125	-.110				
58	27.5	-.272	-.310	-.320				
59	45.0	-.367	-.441	-.513				
60	50.0	-.372	-.456	-.524				
61	59.0	-.318	-.384	-.420				
62	67.5	-.268	-.324	-.356				
63	86.0	.046	.072	.078				
64	94.2	.050	.118	.133				
65	2.0	.145	.160	.190				
66	6.0	.110	.144	.167				
67	15.0	-.195	-.210	-.195				
68	27.5	-.262	-.317	-.301				
69	45.0	-.369	-.440	-.511				
70	50.0	-.374	-.455	-.520				
71	59.0	-.321	-.386	-.426				
72	67.5	-.268	-.324	-.353				
73	77.5	-.070	-.065	-.066				
74	87.5	.043	.060	.070				
75	96.0	.130	.143	.159				
76	2.0	.145	.160	.190				
77	6.0	.076	.098	.090				
78	15.0	-.110	-.130	-.130				
79	27.5	—	—	—				
80	45.0	-.352	-.428	-.497				
81	50.0	-.357	-.432	-.500				
82	59.0	-.304	-.370	-.426				
83	67.5	-.217	-.311	-.400				
84	86.0	.035	.048	.090				
85	94.2	.036	.045	.024				

CONFIDENTIAL



TABLE 2

 $\alpha = 0^\circ, \delta_{\text{ref}} = 0^\circ, \alpha = 0^\circ$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.75	0.80	0.85	0.90	0.95	0.60	0.75	0.80	0.85	0.90	0.95
A 1	2.0	-0.000	0.035	0.065	0.205	0.285	0.370	0.000	-0.141	-0.175	-0.230	-0.310	-0.310
2	3.0	-0.130	-0.171	-0.140	-0.055	-0.07	-0.04	-0.130	-0.165	-0.172	-0.216	-0.240	-0.240
3	15.0	-0.180	-0.210	-0.180	-0.075	-0.09	-0.04	-0.180	-0.205	-0.205	-0.250	-0.300	-0.300
4	25.0	-0.151	-0.180	-0.148	-0.075	-0.09	-0.04	-0.151	-0.175	-0.175	-0.205	-0.250	-0.250
5	35.0	-0.167	-0.194	-0.168	-0.075	-0.09	-0.04	-0.167	-0.190	-0.190	-0.225	-0.260	-0.260
6	45.0	-0.160	-0.189	-0.190	-0.070	-0.09	-0.04	-0.160	-0.185	-0.185	-0.215	-0.250	-0.250
7	55.0	-0.158	-0.186	-0.186	-0.070	-0.09	-0.04	-0.158	-0.182	-0.182	-0.213	-0.245	-0.245
8	67.5	-	-	-	-	-	-	-	-	-	-	-	-
9	77.5	-0.090	-0.090	-0.085	-0.085	-0.085	-0.085	-0.140	-0.140	-0.140	-0.140	-0.140	-0.140
10	87.5	-0.010	0.000	0.022	0.020	0.010	0.005	-0.080	-0.080	-0.080	-0.080	-0.080	-0.080
11	95.5	-0.030	0.036	0.070	0.070	0.090	0.090	-0.060	-0.060	-0.060	-0.060	-0.060	-0.060
B12	2.0	-0.000	-0.111	-0.176	-0.260	-0.300	-0.360	-0.000	-0.141	-0.175	-0.230	-0.310	-0.310
13	4.0	-0.165	-0.197	-0.110	-0.012	0.015	0.070	-0.165	-0.197	-0.197	-0.237	-0.280	-0.280
14	15.0	-0.130	-0.162	-0.118	-0.040	-0.06	-0.03	-0.130	-0.165	-0.165	-0.210	-0.250	-0.250
15	27.5	-0.141	-0.168	-0.144	-0.045	-0.06	-0.03	-0.141	-0.175	-0.175	-0.215	-0.255	-0.255
16	40.0	-0.150	-0.174	-0.160	-0.049	-0.06	-0.03	-0.150	-0.185	-0.185	-0.220	-0.260	-0.260
17	50.0	-0.150	-0.174	-0.160	-0.049	-0.06	-0.03	-0.150	-0.185	-0.185	-0.220	-0.260	-0.260
18	55.0	-0.150	-0.174	-0.160	-0.049	-0.06	-0.03	-0.150	-0.185	-0.185	-0.220	-0.260	-0.260
19	67.5	-0.150	-0.174	-0.160	-0.049	-0.06	-0.03	-0.150	-0.185	-0.185	-0.220	-0.260	-0.260
20	77.5	-0.150	-0.174	-0.160	-0.049	-0.06	-0.03	-0.150	-0.185	-0.185	-0.220	-0.260	-0.260
21	87.5	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100
22	95.5	-0.140	-0.160	-0.160	-0.130	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
C25	2.0	-0.040	-0.130	-0.200	-0.304	-0.325	-0.360	-0.040	-0.150	-0.170	-0.200	-0.240	-0.240
24	4.0	-0.179	-0.141	-0.010	0.010	0.061	0.158	-0.179	-0.165	-0.165	-0.237	-0.280	-0.280
25	15.0	-0.060	-0.151	-0.116	-0.230	-0.211	-0.220	-0.120	-0.250	-0.250	-0.300	-0.340	-0.340
26	27.5	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
27	40.0	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
28	50.0	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
29	55.0	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
30	67.5	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
31	77.5	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
32	87.5	-0.030	-0.050	-0.080	-0.085	-0.085	-0.085	-0.179	-0.179	-0.179	-0.210	-0.250	-0.250
33	95.5	-0.125	-0.149	-0.178	-0.070	-0.070	-0.040	-0.125	-0.125	-0.125	-0.160	-0.200	-0.200
D4	2.0	-0.034	-0.060	-0.140	-0.240	-0.290	-0.360	-0.034	-0.141	-0.163	-0.190	-0.230	-0.230
35	15.0	-0.090	-0.155	-0.100	-0.205	-0.225	-0.250	-0.111	-0.250	-0.250	-0.290	-0.330	-0.330
36	27.5	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
37	40.0	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
38	50.0	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
39	55.0	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
40	67.5	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
41	77.5	-0.140	-0.165	-0.124	-0.214	-0.214	-0.220	-0.130	-0.250	-0.250	-0.300	-0.340	-0.340
42	87.5	-0.030	-0.043	-0.070	-0.085	-0.085	-0.085	-0.179	-0.179	-0.179	-0.210	-0.250	-0.250
43	94.2	-0.110	-0.140	-0.160	-0.099	-0.099	-0.060	-0.120	-0.120	-0.120	-0.160	-0.200	-0.200
E44	2.0	-0.008	-0.026	-0.100	-0.198	-0.282	-0.350	-0.008	-0.141	-0.150	-0.160	-0.160	-0.160
45	6.0	-0.166	-0.180	-0.110	-0.007	0.050	0.091	-0.166	-0.180	-0.180	-0.200	-0.240	-0.240
46	15.0	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
47	27.5	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
48	40.0	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
49	50.0	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
50	55.0	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
51	67.5	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
52	77.5	-0.140	-0.176	-0.134	-0.230	-0.175	-0.120	-0.140	-0.180	-0.180	-0.200	-0.240	-0.240
53	87.5	-0.076	-0.099	-0.102	-0.097	-0.097	-0.060	-0.120	-0.120	-0.120	-0.160	-0.200	-0.200
54	95.5	-0.140	-0.169	-0.169	-0.099	-0.099	-0.060	-0.120	-0.120	-0.120	-0.160	-0.200	-0.200
F55	2.0	-0.000	-0.060	-0.168	-0.286	-0.330	-0.360	-0.000	-0.141	-0.150	-0.160	-0.160	-0.160
56	6.0	-0.210	-0.180	-0.030	-0.030	-0.130	-0.130	-0.210	-0.200	-0.200	-0.220	-0.260	-0.260
57	15.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
58	27.5	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
59	40.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
60	50.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
61	55.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
62	67.5	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
63	77.5	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
64	86.5	-0.025	-0.047	-0.080	-0.104	-0.104	-0.060	-0.120	-0.120	-0.120	-0.160	-0.200	-0.200
65	94.5	-0.088	-0.120	-0.140	-0.099	-0.099	-0.060	-0.120	-0.120	-0.120	-0.160	-0.200	-0.200
G65	2.0	-0.030	-0.110	-0.195	-0.286	-0.330	-0.360	-0.030	-0.141	-0.105	-0.100	-0.110	-0.110
66	6.0	-0.197	-0.178	-0.023	-0.008	-0.040	-0.040	-0.197	-0.141	-0.141	-0.141	-0.141	-0.141
67	15.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
68	27.5	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
69	40.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
70	50.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
71	55.0	-0.340	-0.314	-0.230	-0.175	-0.120	-0.075	-0.340	-0.314	-0.314	-0.360	-0.410	-0.410
72	67.5	-0.340	-0.314	-0.230	-0.175								

TABLE 3

[$\Lambda = 0^\circ$, $R_{\infty} = 0^\circ$, $a = 2^\circ$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE							
		cent	chord	Mach Number	0.60	0.80	0.85	0.89	0.925	0.60	0.80	0.85	0.89	0.925
A 1	2.0	-0.677	-0.461	-0.231	-0.128	-0.061								
2	6.0	-0.260	-0.234	-0.169	-0.100	-0.050								
3	15.0	-0.140	-0.128	-0.112	-0.101	-0.090								
4	24.0	-0.120	-0.112	-0.103	-0.093	-0.085								
5	40.0	-0.080	-0.071	-0.063	-0.053	-0.045								
6	50.0	-0.071	-0.061	-0.051	-0.041	-0.035								
7	60.0	-0.055	-0.041	-0.030	-0.020	-0.010								
8	67.5	-0.041	-0.027	-0.013	-0.003	-0.001								
9	77.5	-0.111	-0.097	-0.110	-0.118	-0.120								
10	87.5	-0.080	-0.068	-0.071	-0.063	-0.051								
11	96.0	.030	.050	.040	.000	.000								
B12	2.0	-0.24	-0.270	-0.261	-0.207	-0.090								
13	6.0	-0.150	-0.177	-0.140	-0.118	-0.100								
14	15.0	-0.080	-0.090	-0.070	-0.050	-0.030								
15	27.5	-0.068	-0.070	-0.060	-0.048	-0.038								
16	40.0	-0.050	-0.048	-0.040	-0.030	-0.020								
17	50.0	-0.040	-0.030	-0.020	-0.010	-0.005								
18	60.0	-0.030	-0.020	-0.010	-0.005	-0.002								
19	67.5	-0.020	-0.010	-0.005	-0.002	-0.001								
20	77.5	-0.010	-0.005	-0.002	-0.001	-0.000								
21	86.0	.000	.000	.000	.000	.000								
22	95.3	.113	.150	.100	.000	.000								
C13	2.0	-0.30	-0.218	-0.109	-0.070	.180								
24	6.0	-0.24	-0.160	-0.140	-0.130	-0.090								
25	15.0	-0.157	-0.140	-0.106	-0.086	-0.056								
26	24.0	-0.080	-0.070	-0.060	-0.050	-0.040								
27	40.0	-0.050	-0.040	-0.030	-0.020	-0.010								
28	50.0	-0.040	-0.030	-0.020	-0.010	-0.005								
29	60.0	-0.030	-0.020	-0.010	-0.005	-0.002								
30	67.5	-0.020	-0.010	-0.005	-0.002	-0.001								
31	77.5	-0.010	-0.005	-0.002	-0.001	-0.000								
32	86.0	.000	.000	.000	.000	.000								
33	95.3	.116	.090	.070	.050	.030								
D14	2.0	-0.411	-0.296	-0.190	-0.090	.073								
35	15.0	-0.280	-0.210	-0.180	-0.110	-0.080								
36	27.5	-0.177	-0.171	-0.149	-0.117	-0.080								
37	40.0	-0.065	-0.075	-0.071	-0.070	-0.060								
38	60.0	-0.055	-0.051	-0.041	-0.031	-0.020								
39	67.5	-0.041	-0.031	-0.021	-0.011	-0.005								
40	77.5	-0.030	-0.018	-0.010	-0.005	-0.002								
41	87.5	-0.020	-0.012	-0.006	-0.003	-0.001								
42	94.0	-0.014	-0.004	-0.002	-0.001	-0.000								
43	94.2	.000	.007	.014	.014	.000								
E44	2.0	-0.316	-0.263	-0.160	-0.100	.117								
45	6.0	-0.200	-0.150	-0.100	-0.080	-0.060								
46	15.0	-0.150	-0.150	-0.118	-0.100	-0.060								
47	24.0	-0.060	-0.060	-0.050	-0.040	-0.030								
48	40.0	-0.050	-0.040	-0.031	-0.021	-0.011								
49	50.0	-0.040	-0.031	-0.021	-0.011	-0.005								
50	60.0	-0.030	-0.020	-0.010	-0.005	-0.002								
51	67.5	-0.020	-0.010	-0.005	-0.002	-0.001								
52	77.5	-0.010	-0.005	-0.002	-0.001	-0.000								
53	86.0	.006	.000	.000	.000	.000								
54	95.5	.140	.036	.016	.006	.000								
F55	2.0	-0.417	-0.360	-0.248	-0.149	.120								
56	6.0	-0.280	-0.210	-0.180	-0.100	-0.060								
57	15.0	-0.196	-0.140	-0.130	-0.100	-0.060								
58	27.5	-0.077	-0.071	-0.060	-0.050	-0.030								
59	40.0	-0.060	-0.050	-0.040	-0.030	-0.020								
60	50.0	-0.050	-0.040	-0.030	-0.020	-0.010								
61	59.0	-0.040	-0.030	-0.020	-0.010	-0.005								
62	67.5	-0.030	-0.020	-0.010	-0.005	-0.002								
63	86.0	.000	.000	.000	.000	.000								
64	94.0	.141	.000	.000	.000	.000								
G65	2.0	-0.500	-0.408	-0.218	-0.077	.140								
66	6.0	-0.370	-0.311	-0.210	-0.117	-0.077								
67	15.0	-0.290	-0.240	-0.190	-0.100	-0.060								
68	27.5	-0.180	-0.170	-0.130	-0.080	-0.050								
69	40.0	-0.070	-0.060	-0.050	-0.030	-0.020								
70	50.0	-0.060	-0.050	-0.040	-0.020	-0.010								
71	59.0	-0.050	-0.040	-0.030	-0.017	-0.006								
72	67.5	-0.040	-0.031	-0.020	-0.010	-0.005								
73	77.5	-0.030	-0.020	-0.010	-0.005	-0.002								
74	87.2	.015	.006	.000	.000	.000								
75	96.8	.111	.080	.031	.000	.000								
H76	2.0	-0.496	-0.410	-0.330	-0.260	-0.195								
77	6.0	-0.363	-0.300	-0.213	-0.160	-0.100								
78	15.0	-0.280	-0.240	-0.180	-0.120	-0.070								
79	27.5	-0.170	-0.160	-0.110	-0.060	-0.030								
80	40.0	-0.065	-0.056	-0.041	-0.026	-0.016								
81	50.0	-0.056	-0.045	-0.031	-0.016	-0.006								
82	59.0	-0.045	-0.035	-0.020	-0.010	-0.005								
83	67.5	-0.035	-0.027	-0.016	-0.006	-0.002								
84	86.3	.018	.018	.016	.006	.000								
85	94.2	.236	.175	.180	.000	.000								

CONFIDENTIAL

NACA

TABLE 4

[$\Lambda = 0^\circ$, $b_{an} = 0^\circ$, $a = b^\circ$]

CONFIDENTIAL

Tube	Fer- cent chord	UPPER SURFACE						LOWER SURFACE							
		Mach Number						Mach Number							
		0.60	0.75	0.80	0.85	0.89	0.95	0.60	0.75	0.80	0.85	0.89	0.95		
A 1	2.0	-1.656	-1.408	-1.080	-0.731	-0.561	-0.443	66	3.0	0.260	0.268	0.300	0.440	0.440	0.451
2	4.0	-0.956	-1.160	-1.200	-0.815	-0.650	-0.500	67	10.3	-	-	-	-	-	-
3	15.0	-0.688	-0.641	-0.806	-0.690	-0.649	-0.470	68	25.0	0.038	0.045	-0.019	-0.069	-0.075	-0.080
4	27.5	-0.578	-0.761	-0.806	-0.690	-0.649	-0.470	69	41.0	-0.080	-0.096	-0.160	-0.200	-0.210	-0.170
5	40.0	-0.548	-0.730	-0.806	-0.690	-0.649	-0.470	70	62.5	-0.092	-0.079	-0.130	-0.180	-0.190	-0.160
6	50.0	-0.490	-0.660	-0.718	-0.690	-0.649	-0.470	71	84.5	-0.038	-0.038	-0.089	-0.169	-0.181	-0.143
7	59.0	-0.439	-0.590	-0.638	-0.603	-0.591	-0.470	72	94.0	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
8	67.5	-	-	-	-	-	-	73	11.0	-	-	-	-	-	-
9	67.5	-	-	-	-	-	-	74	27.5	-	-	-	-	-	-
10	67.5	-	-	-	-	-	-	75	41.0	-	-	-	-	-	-
11	94.0	.018	.001	.019	.019	.000	.000	76	62.5	-	-	-	-	-	-
R12	2.0	-1.308	-1.016	-0.711	-0.440	-0.293	-0.190	77	84.2	-0.110	-0.140	-0.105	-0.055	-0.055	-0.170
13	6.0	-1.008	-1.160	-0.891	-0.650	-0.511	-0.400	78	94.0	.117	.142	.120	.091	.081	.191
14	15.0	-0.756	-1.155	-0.940	-0.731	-0.610	-0.410	79	3.0	.544	.545	.480	.410	.410	.433
15	27.5	-0.688	-1.122	-1.042	-0.863	-0.768	-0.568	80	10.3	.296	.270	.220	.175	.180	.213
16	40.0	-0.628	-1.060	-0.906	-0.790	-0.720	-0.560	81	25.0	.010	.009	.049	.101	.103	.066
17	50.0	-0.578	-0.960	-0.860	-0.807	-0.762	-0.795	82	41.0	-	-	-120	-139	-300	-329
18	59.0	-0.540	-0.860	-0.790	-0.771	-0.719	-0.810	83	62.5	-0.092	-0.092	-0.139	-0.130	-0.170	-0.130
19	67.5	-0.500	-0.791	-0.720	-0.690	-0.648	-0.808	84	84.5	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
20	77.5	-0.458	-0.720	-0.658	-0.628	-0.588	-0.801	85	94.0	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
21	86.0	.010	.006	.020	.016	.001	.000	86	3.0	.110	.140	.105	.055	.055	.170
22	95.3	.005	.005	.010	.018	.000	.000	87	10.3	.110	.142	.120	.091	.081	.191
G3	2.0	-1.307	-1.018	-0.712	-0.442	-0.294	-0.190	88	27.5	-	-	-	-	-	-
24	6.0	-1.007	-1.160	-0.891	-0.650	-0.511	-0.400	89	41.0	-	-	-	-	-	-
45	15.0	-0.750	-1.120	-0.940	-0.731	-0.610	-0.410	90	62.5	-0.092	-0.092	-0.139	-0.130	-0.170	-0.130
26	27.5	-0.688	-1.065	-0.893	-0.761	-0.658	-0.561	91	84.5	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
27	40.0	-0.628	-0.960	-0.860	-0.807	-0.762	-0.795	92	94.0	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
28	50.0	-0.578	-0.860	-0.790	-0.770	-0.720	-0.808	93	3.0	.544	.545	.480	.410	.410	.433
39	59.0	-0.540	-0.791	-0.720	-0.690	-0.648	-0.808	94	10.3	.296	.270	.220	.175	.180	.213
30	67.5	-0.500	-0.720	-0.658	-0.628	-0.588	-0.801	95	25.0	-0.092	-0.092	-0.139	-0.130	-0.170	-0.130
31	77.5	-0.458	-0.660	-0.590	-0.560	-0.511	-0.801	96	41.0	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
32	86.0	.005	.006	.010	.010	.000	.000	97	62.5	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
33	95.3	.005	.005	.010	.018	.000	.000	98	84.2	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
D34	2.0	-1.330	-1.000	-0.748	-0.481	-0.340	-0.200	99	3.0	.538	.539	.480	.410	.410	.433
35	15.0	-0.804	-1.060	-0.891	-0.761	-0.611	-0.411	100	10.3	.240	.250	.190	.150	.150	.190
36	27.5	-0.739	-1.120	-0.950	-0.770	-0.648	-0.460	101	25.0	.010	.009	.049	.101	.103	.070
37	40.0	-0.712	-1.118	-0.940	-0.800	-0.756	-0.710	102	41.0	-0.092	-0.092	-0.139	-0.111	-0.170	-0.130
38	50.0	-0.668	-0.960	-0.890	-0.790	-0.746	-0.808	103	62.5	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
39	59.0	-0.630	-0.860	-0.790	-0.767	-0.721	-0.810	104	84.5	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
40	67.5	-0.592	-0.791	-0.720	-0.690	-0.648	-0.801	105	94.0	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
41	77.5	-0.548	-0.720	-0.658	-0.628	-0.588	-0.801	106	3.0	.544	.545	.480	.410	.410	.433
42	86.0	-0.506	-0.660	-0.590	-0.560	-0.511	-0.808	107	10.3	.240	.250	.190	.150	.150	.190
43	95.3	.005	.005	.010	.018	.000	.000	108	25.0	.010	.009	.049	.101	.103	.070
F44	2.0	-1.340	-1.018	-0.758	-0.492	-0.353	-0.200	109	41.0	-0.092	-0.092	-0.139	-0.111	-0.170	-0.130
45	6.0	-1.008	-1.160	-0.891	-0.650	-0.511	-0.400	110	62.5	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
46	15.0	-0.756	-1.120	-0.940	-0.731	-0.610	-0.410	111	84.5	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
47	27.5	-0.688	-1.065	-0.893	-0.761	-0.658	-0.561	112	94.0	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
48	40.0	-0.628	-0.960	-0.860	-0.807	-0.762	-0.795	113	3.0	.538	.539	.480	.410	.410	.433
49	50.0	-0.578	-0.860	-0.790	-0.770	-0.720	-0.810	114	10.3	.240	.250	.190	.150	.150	.190
50	59.0	-0.540	-0.791	-0.720	-0.690	-0.648	-0.808	115	25.0	-0.092	-0.092	-0.139	-0.111	-0.170	-0.130
51	67.5	-0.500	-0.720	-0.658	-0.628	-0.588	-0.801	116	41.0	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
52	77.5	-0.458	-0.660	-0.590	-0.560	-0.511	-0.808	117	62.5	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
53	86.0	.005	.006	.010	.010	.000	.000	118	84.5	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
54	95.3	.005	.005	.010	.018	.000	.000	119	94.0	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
F55	2.0	-1.340	-1.018	-0.758	-0.492	-0.353	-0.200	120	3.0	.544	.545	.480	.410	.410	.433
55	6.0	-1.008	-1.160	-0.891	-0.650	-0.511	-0.400	121	10.3	.240	.250	.190	.150	.150	.190
56	15.0	-0.756	-1.120	-0.940	-0.731	-0.610	-0.410	122	25.0	-0.092	-0.092	-0.139	-0.111	-0.170	-0.130
57	27.5	-0.688	-1.065	-0.893	-0.761	-0.658	-0.561	123	41.0	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
58	40.0	-0.628	-0.960	-0.860	-0.807	-0.762	-0.795	124	62.5	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
59	50.0	-0.578	-0.860	-0.790	-0.770	-0.720	-0.810	125	84.5	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
60	59.0	-0.540	-0.791	-0.720	-0.690	-0.648	-0.808	126	94.0	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
61	67.5	-0.500	-0.720	-0.658	-0.628	-0.588	-0.801	127	3.0	.538	.539	.480	.410	.410	.433
62	77.5	-0.458	-0.660	-0.590	-0.560	-0.511	-0.808	128	10.3	.240	.250	.190	.150	.150	.190
63	86.0	.011	.011	.010	.010	.000	.000	129	25.0	-0.092	-0.092	-0.139	-0.111	-0.170	-0.130
64	95.3	.011	.011	.010	.018	.000	.000	130	41.0	-0.038	-0.038	-0.089	-0.169	-0.190	-0.143
65	104.5	.077	.116	.140	.130	.090	.078	131	62.5	-0.012	-0.004	-0.048	-0.110	-0.200	-0.190
66	112	-0.797	-1.160	-0.901	-0.771	-0.631	-0.470	132	84.5	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
67	120	-0.730	-1.120	-0.940	-0.806	-0.669	-0.470	133	94.0	-0.005	-0.005	-0.075	-0.161	-0.190	-0.143
68	137.5	-0.679	-1.060	-0.890	-0.760	-0.611	-0.500	134	3.0	.544	.545	.480	.410	.410	.433
69	140.0	-0.628	-0.960	-0.860	-0.807	-0.762	-0.795	135	10.3	.240	.250	.190	.150	.150	.190
70	150.0	-0.578	-0.860	-0.790	-0.770	-0.721	-0.810	136	25.0	-0.092	-0.092	-0.139	-0.111	-0.170	-0.130
71	159.0	-0.540	-0.791												

TABLE 5

[$\Lambda = 0^\circ$, $b_{ch} = 0^\circ$, $a = 7^\circ$]

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.75	0.80	0.85	0.89	0.925	0.60	0.75	0.80	0.85	0.89	0.925
A 1	2.0	-1.260	-1.301	-1.347	-1.391	-1.434	-1.464	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
2	2.0	-1.163	-1.196	-1.217	-1.239	-1.259	-1.277	-0.860	-0.877	-0.891	-0.901	-0.911	-0.914
3	15.0	-1.149	-1.169	-1.174	-1.174	-1.174	-1.174	-0.860	-0.877	-0.891	-0.901	-0.911	-0.914
4	27.5	-0.894	-1.200	-1.336	-1.390	-1.427	-1.461	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
5	40.0	-0.529	-1.110	-1.170	-1.200	-1.230	-1.256	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
6	60.0	-0.400	-1.089	-1.149	-1.190	-1.231	-1.256	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
7	77.5	-0.311	-1.081	-1.130	-1.181	-1.211	-1.236	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
8	67.5	-0.275	-1.081	-1.130	-1.181	-1.211	-1.236	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
9	77.5	-0.140	-	-	-	-	-	-	-	-	-	-	-
10	67.5	-0.067	-1.067	-1.106	-1.156	-1.186	-1.216	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
11	94.0	-0.025	-0.04	-0.075	-0.110	-0.140	-0.171	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
12	2.0	-0.300	-1.150	-1.190	-1.231	-1.272	-1.306	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
13	6.0	-0.268	-1.191	-1.231	-1.272	-1.313	-1.344	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
14	15.0	-1.091	-1.140	-1.181	-1.200	-1.231	-1.272	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
15	27.5	-0.869	-1.331	-1.380	-1.420	-1.460	-1.491	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
16	40.0	-0.600	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
17	50.0	-0.485	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
18	59.0	-0.410	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
19	67.5	-0.289	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
20	77.5	-0.166	-1.061	-1.111	-1.161	-1.201	-1.231	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
21	86.0	-0.070	-1.051	-1.091	-1.131	-1.171	-1.201	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
22	95.5	-0.038	-1.110	-1.151	-1.191	-1.231	-1.261	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
23	2.0	-0.440	-1.140	-1.180	-1.220	-1.261	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
24	6.0	-0.323	-1.140	-1.180	-1.220	-1.261	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
25	15.0	-1.009	-1.140	-1.180	-1.220	-1.261	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
26	27.5	-0.869	-1.331	-1.380	-1.420	-1.460	-1.491	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
27	40.0	-0.633	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
28	50.0	-0.518	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
29	59.0	-0.445	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
30	67.5	-0.223	-1.061	-1.111	-1.161	-1.201	-1.231	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
31	77.5	-0.098	-1.051	-1.091	-1.131	-1.171	-1.201	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
32	86.0	-0.045	-1.041	-1.081	-1.121	-1.161	-1.191	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
33	95.5	-0.018	-1.031	-1.071	-1.111	-1.151	-1.181	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
34	2.0	-0.412	-1.135	-1.176	-1.217	-1.258	-1.299	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
35	15.0	-1.045	-1.131	-1.170	-1.210	-1.251	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
36	27.5	-0.869	-1.329	-1.379	-1.419	-1.459	-1.491	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
37	40.0	-0.633	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
38	50.0	-0.518	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
39	59.0	-0.445	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
40	67.5	-0.223	-1.061	-1.111	-1.161	-1.201	-1.231	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
41	77.5	-0.098	-1.051	-1.091	-1.131	-1.171	-1.201	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
42	86.0	-0.045	-1.041	-1.081	-1.121	-1.161	-1.191	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
43	94.2	-0.018	-1.031	-1.071	-1.111	-1.151	-1.181	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
44	2.0	-0.413	-1.126	-1.167	-1.207	-1.248	-1.289	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
45	15.0	-1.045	-1.131	-1.170	-1.210	-1.251	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
46	27.5	-0.869	-1.329	-1.379	-1.419	-1.459	-1.491	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
47	40.0	-0.633	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
48	50.0	-0.518	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
49	59.0	-0.445	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
50	67.5	-0.223	-1.061	-1.111	-1.161	-1.201	-1.231	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
51	77.5	-0.098	-1.051	-1.091	-1.131	-1.171	-1.201	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
52	86.0	-0.045	-1.041	-1.081	-1.121	-1.161	-1.191	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
53	94.2	-0.018	-1.031	-1.071	-1.111	-1.151	-1.181	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
54	2.0	-0.413	-1.126	-1.167	-1.207	-1.248	-1.289	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
55	15.0	-1.045	-1.131	-1.170	-1.210	-1.251	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
56	27.5	-0.869	-1.329	-1.379	-1.419	-1.459	-1.491	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
57	40.0	-0.633	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
58	50.0	-0.518	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
59	59.0	-0.445	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
60	67.5	-0.223	-1.061	-1.111	-1.161	-1.201	-1.231	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
61	77.5	-0.098	-1.051	-1.091	-1.131	-1.171	-1.201	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
62	86.0	-0.045	-1.041	-1.081	-1.121	-1.161	-1.191	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
63	94.2	-0.018	-1.031	-1.071	-1.111	-1.151	-1.181	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
64	2.0	-0.413	-1.126	-1.167	-1.207	-1.248	-1.289	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
65	15.0	-1.045	-1.131	-1.170	-1.210	-1.251	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
66	27.5	-0.869	-1.329	-1.379	-1.419	-1.459	-1.491	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
67	40.0	-0.633	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
68	50.0	-0.518	-1.089	-1.139	-1.189	-1.229	-1.259	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
69	59.0	-0.445	-1.079	-1.129	-1.179	-1.219	-1.249	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
70	67.5	-0.223	-1.061	-1.111	-1.161	-1.201	-1.231	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
71	77.5	-0.098	-1.051	-1.091	-1.131	-1.171	-1.201	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
72	86.0	-0.045	-1.041	-1.081	-1.121	-1.161	-1.191	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
73	94.2	-0.018	-1.031	-1.071	-1.111	-1.151	-1.181	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
74	2.0	-0.413	-1.126	-1.167	-1.207	-1.248	-1.289	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925
75	15.0	-1.045	-1.131	-1.170	-1.210	-1.251	-1.292	-0.860	-0.886	-0.900	-0.914	-0.921	-0.925</td

TABLE 6

 $[A = 0^\circ, \theta_m = 0^\circ, \alpha = 10^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE			LOWER SURFACE					
		cent	chord	Mach Number	0.60	0.75	0.80	0.60	0.75	0.80
A 1	2.0	-0.582	-0.555	-0.580						
6	6.0	-0.170	-0.153	-0.170						
3	15.0	-0.570	-0.540	-0.565						
4	27.5	-0.550	-0.520	-0.555						
5	37.5	-0.540	-0.510	-0.545						
6	50.0	-0.540	-0.510	-0.545						
7	59.0	-0.530	-0.501	-0.537						
8	67.5	-0.520	-0.490	-0.521						
9	77.5	-0.510	-0.480	-0.511						
10	87.5	-0.500	-0.470	-0.501						
11	94.0	-0.490	-0.460	-0.497						
612	2.0	-1.001	-0.900	-0.900						
15	6.0	-0.716	-0.543	-0.830						
14	15.0	-0.620	-0.542	-0.642						
15	27.5	-0.620	-0.540	-0.570						
16	40.0	-0.640	-0.570	-0.580						
17	50.0	-0.640	-0.571	-0.581						
18	69.0	-0.660	-0.600	-0.621						
19	77.5	-0.640	-0.610	-0.644						
20	87.5	-0.640	-0.610	-0.645						
21	94.0	-0.640	-0.610	-0.660						
22	95.3	-0.532	-0.511	-0.647						
C23	2.0	-1.048	-1.040	-1.046						
24	6.0	-1.734	-1.567	-1.368						
25	15.0	-1.298	-1.145	-1.267						
28	27.5	-0.836	-0.906	-1.126						
27	40.0	-0.836	-0.906	-1.126						
28	50.0	-0.609	-0.609	-0.646						
29	59.0	-0.600	-0.600	-0.610						
30	67.5	-0.583	-0.581	-0.578						
31	77.5	-0.583	-0.580	-0.588						
32	86.0	-0.382	-0.571	-0.546						
33	95.3	-0.280	-0.467	-0.450						
34	2.0	-1.098	-1.080	-1.081	-1.130					
35	15.0	-1.462	-1.435	-1.272						
36	27.5	-1.000	-1.190	-1.142						
37	40.0	-0.720	-0.836	-0.820						
38	50.0	-0.560	-0.601	-0.713						
39	59.0	-0.561	-0.570	-0.661						
40	67.5	-0.560	-0.568	-0.654						
41	77.5	-0.560	-0.570	-0.650						
42	87.5	-0.560	-0.570	-0.649						
43	94.0	-0.560	-0.570	-0.640						
F44	2.0	-1.800	-1.535	-1.376						
45	6.0	-1.614	-1.365	-1.360						
46	15.0	-1.316	-1.160	-1.030						
47	27.5	-1.020	-0.929	-0.976						
48	40.0	-0.727	-0.727	-0.776						
49	50.0	-0.570	-0.700	-1.000						
50	59.0	-0.560	-0.681	-0.660						
51	67.5	-0.560	-0.610	-0.610						
52	77.5	-0.560	-0.560	-0.600						
53	86.0	-0.275	-0.560	-0.547						
54	95.3	-0.262	-0.433	-0.512						
F55	2.0	-1.640	-1.560	-1.397						
56	6.0	-1.540	-1.489	-1.281						
57	15.0	-1.360	-1.302	-1.231						
58	27.5	-0.836	-0.836	-0.836						
59	40.0	-0.781	-0.800	-0.800						
60	50.0	-0.590	-0.717	-0.726						
61	59.0	-0.580	-0.650	-0.630						
62	67.5	-0.582	-0.590	-0.640						
63	86.0	-0.267	-0.560	-0.550						
64	94.0	-0.262	-0.460	-0.500						
F65	2.0	-1.188	-1.081	-1.087						
66	6.0	-1.160	-1.093	-1.061						
67	15.0	-1.150	-0.997	-1.121						
68	27.5	-1.060	-0.889	-0.870						
69	40.0	-0.777	-0.772	-0.763						
70	50.0	-0.608	-0.793	-0.692						
71	59.0	-0.600	-0.789	-0.782						
72	67.5	-0.602	-0.619	-0.616						
73	77.5	-0.602	-0.602	-0.600						
74	87.5	-0.362	-0.500	-0.547						
75	94.0	-0.180	-0.468	-0.460						
F76	2.0	-1.190	-1.068	-1.137						
77	6.0	-1.063	-1.081	-1.060						
78	15.0	-1.121	-1.110	-1.208						
79	27.5	-1.060	-0.900	-1.060						
80	40.0	-0.698	-0.698	-0.801						
81	50.0	-0.466	-0.610	-0.707						
82	59.0	-0.430	-0.518	-0.641						
83	67.5	-0.115	-0.408	-0.591						
84	86.0	-0.126	-0.218	-0.390						
85	94.0	-0.023	-0.023	-0.026						

CONFIDENTIAL

NACA

TABLE 7

 $\alpha = 30^\circ, \delta_{\text{eq}} = 0^\circ, \alpha = -\frac{\pi}{2}$

CONFIDENTIAL

Tube	For- cent chord	UPPER SURFACE				LOWER SURFACE			
		Mach Number				Mach Number			
		0.60	0.80	0.85	0.90	0.60	0.80	0.85	0.90
A 1	2.0	.010	.102	.192	.305				
2	6.0	.104	.104	.160					
3	15.0	-.005	.005	.018					
4	24.0	-.005	-.005	-.010					
5	33.0	—	—	—					
6	42.0	—	—	—					
7	51.0	—	—	—					
8	59.0	—	—	—					
9	67.5	—	—	—					
10	77.5	—	—	—					
11	87.5	—	—	—					
12	96.0	—	—	—					
B12	2.0	.108	.148	.170					
13	6.0	.080	.107	.126					
14	15.0	-.070	-.070	-.051					
15	27.5	-.180	-.198	-.191					
16	40.0	-.253	-.103	-.318					
17	50.0	-.270	-.384	-.368					
18	59.0	-.291	-.384	-.368					
19	67.5	-.305	-.410	-.398					
20	77.5	-.340	-.420	-.398					
21	87.5	-.023	-.037	-.050					
22	95.5	—	—	—					
C23	2.0	.110	.148	.160					
24	6.0	.071	.090	.110					
25	15.0	-.100	-.105	-.091					
26	27.5	-.200	-.205	-.205					
27	40.0	-.265	-.265	-.265					
28	50.0	-.280	-.380	-.440					
29	59.0	-.302	-.341	-.395					
30	67.5	-.205	—	—					
31	77.5	-.100	-.140	-.140					
32	87.5	-.010	-.004	-.000					
33	95.5	—	—	—					
D34	2.0	-.065	.093	.114					
35	15.0	-.104	-.120	-.144					
36	27.5	-.210	-.240	-.273					
37	40.0	-.281	-.317	-.400					
38	50.0	-.286	-.381	-.441					
39	59.0	-.307	-.335	-.370					
40	67.5	-.200	-.260	-.311					
41	77.5	-.105	-.165	-.200					
42	87.5	.010	.010	.048					
43	96.2	-.006	.110	.118					
E44	2.0	-.155	.179	.187	.200				
45	6.0	.065	.095	.105	.100				
46	15.0	-.098	-.102	-.108	-.108				
47	27.5	-.197	-.210	-.208	-.208				
48	40.0	-.265	-.275	-.270	-.270				
49	50.0	-.270	-.342	-.400	-.518				
50	59.0	-.290	-.370	-.431	-.531				
51	67.5	-.198	-.248	-.311	-.418				
52	77.5	-.060	-.071	-.081	-.090				
53	87.5	.160	.155	.160	.170				
54	95.5	.127	.148	.153	.170				
F55	2.0	.330	.379	.365	.362				
56	6.0	.090	.105	.102	.110				
57	15.0	-.083	-.100	-.105	-.110				
58	27.5	-.198	-.215	-.205	-.270				
59	40.0	-.261	-.261	-.261	-.261				
60	50.0	-.261	-.316	-.381	-.479				
61	59.0	-.285	-.381	-.482	-.621				
62	67.5	-.198	-.265	-.321	-.479				
63	77.5	-.010	-.010	-.010	-.010				
64	87.5	—	—	—	—				
65	94.5	—	—	—	—				
G66	2.0	.390	.478	.393	.386				
66	6.0	.098	.108	.110	.114				
67	15.0	-.071	-.090	-.091	-.097				
68	27.5	-.174	-.215	-.260	-.395				
69	40.0	-.250	-.218	-.360	-.402				
70	50.0	-.283	-.323	-.372	-.430				
71	59.0	-.299	-.360	-.404	-.500				
72	67.5	-.160	-.200	-.270	-.390				
73	77.5	-.138	-.198	-.262	-.411				
74	87.5	—	—	—	—				
75	94.8	.118	.135	.130	.135				
H76	2.0	.390	.478	.393	.386				
76	6.0	.098	.108	.110	.114				
77	15.0	-.071	-.090	-.091	-.097				
78	27.5	-.174	-.215	-.260	-.395				
79	40.0	-.250	-.218	-.360	-.402				
80	50.0	-.283	-.323	-.372	-.430				
81	59.0	-.299	-.360	-.404	-.500				
82	67.5	-.160	-.200	-.270	-.390				
83	77.5	-.138	-.198	-.262	-.411				
84	87.5	—	—	—	—				
85	94.2	.090	.111	.108	.112				

CONFIDENTIAL

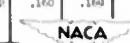


TABLE 8

[$\Delta = 30^\circ$, $R_{\text{eff}} = 0^\circ$, $\alpha = 0^\circ$]

		CONFIDENTIAL					
		UPPER SURFACE					
		Mech Number					
Tube	Ter- cent chord	0.60	0.80	0.85	0.89	0.905	0.96
A 1	2.0	-0.03	0.110	0.135	0.145	0.160	0.208
2	6.0	-0.05	-0.09	-0.09	-0.10	-0.10	-0.08
3	15.0	-0.10	-0.14	-0.138	-0.134	-0.08	-0.08
4	27.5	-0.15	-0.20	-0.19	-0.14	-0.08	-0.01
5	40.0	-0.15	-0.20	-0.20	-0.14	-0.08	-0.01
6	52.5	-	-	-	-	-	-
7	59.0	-	-	-	-	-	-
8	67.5	-	-	-	-	-	-
9	77.5	-	-	-	-	-	-
10	87.5	-	-	-	-	-	-
11	96.0	-	-	-	-	-	-
B12	2.0	-0.05	0.08	0.110	0.137	0.171	0.210
13	6.0	-0.10	-0.18	-0.176	-0.171	-0.123	0.040
14	15.0	-0.15	-0.24	-0.201	-0.18	-0.123	0.040
15	27.5	-0.20	-0.31	-0.28	-0.18	-0.123	0.040
16	40.0	-0.25	-0.35	-0.30	-0.18	-0.123	0.040
17	52.5	-0.30	-0.40	-0.31	-0.18	-0.123	0.040
18	59.0	-0.35	-0.45	-0.38	-0.18	-0.123	0.040
19	67.5	-0.35	-0.45	-0.38	-0.18	-0.123	0.040
20	77.5	-0.35	-0.45	-0.38	-0.18	-0.123	0.040
21	87.5	-0.35	-0.45	-0.38	-0.18	-0.123	0.040
22	96.0	-0.35	-0.45	-0.38	-0.18	-0.123	0.040
C23	2.0	-0.05	0.08	0.070	0.114	0.160	0.208
24	6.0	-0.10	-0.121	-0.113	-0.089	-0.05	-0.010
25	15.0	-0.15	-0.20	-0.193	-0.160	-0.123	0.040
26	27.5	-0.20	-0.26	-0.253	-0.160	-0.123	0.040
27	40.0	-0.25	-0.30	-0.28	-0.160	-0.123	0.040
28	52.5	-0.30	-0.35	-0.31	-0.160	-0.123	0.040
29	59.0	-0.35	-0.40	-0.36	-0.160	-0.123	0.040
30	67.5	-0.35	-0.40	-0.36	-0.160	-0.123	0.040
31	77.5	-0.35	-0.40	-0.36	-0.160	-0.123	0.040
32	87.5	-0.35	-0.40	-0.36	-0.160	-0.123	0.040
33	96.0	-0.35	-0.40	-0.36	-0.160	-0.123	0.040
D44	2.0	-0.05	0.08	0.013	0.036	0.080	0.130
35	6.0	-0.10	-0.121	-0.105	-0.089	-0.05	-0.010
36	15.0	-0.15	-0.20	-0.186	-0.134	-0.114	0.040
37	27.5	-0.20	-0.26	-0.211	-0.134	-0.114	0.040
38	40.0	-0.25	-0.30	-0.260	-0.134	-0.114	0.040
39	52.5	-0.30	-0.35	-0.314	-0.134	-0.114	0.040
40	59.0	-0.35	-0.40	-0.367	-0.134	-0.114	0.040
41	67.5	-0.35	-0.40	-0.367	-0.134	-0.114	0.040
42	77.5	-0.35	-0.40	-0.367	-0.134	-0.114	0.040
43	87.5	-0.35	-0.40	-0.367	-0.134	-0.114	0.040
44	96.0	-0.35	-0.40	-0.367	-0.134	-0.114	0.040
E55	2.0	-0.05	0.08	0.06	0.148	0.188	0.208
56	6.0	-0.10	-0.155	-0.136	-0.100	-0.070	-0.030
57	15.0	-0.15	-0.20	-0.186	-0.134	-0.114	0.040
58	27.5	-0.20	-0.26	-0.231	-0.134	-0.114	0.040
59	40.0	-0.25	-0.30	-0.281	-0.134	-0.114	0.040
60	52.5	-0.30	-0.35	-0.334	-0.134	-0.114	0.040
61	59.0	-0.35	-0.40	-0.384	-0.134	-0.114	0.040
62	67.5	-0.35	-0.40	-0.384	-0.134	-0.114	0.040
63	77.5	-0.35	-0.40	-0.384	-0.134	-0.114	0.040
64	87.5	-0.35	-0.40	-0.384	-0.134	-0.114	0.040
65	96.0	-0.35	-0.40	-0.384	-0.134	-0.114	0.040
F76	2.0	-0.05	0.08	0.008	0.012	0.011	0.130
67	6.0	-0.10	-0.151	-0.148	-0.121	-0.090	-0.060
68	15.0	-0.15	-0.20	-0.181	-0.140	-0.110	0.070
69	27.5	-0.20	-0.26	-0.212	-0.140	-0.110	0.070
70	40.0	-0.25	-0.30	-0.262	-0.140	-0.110	0.070
71	52.5	-0.30	-0.35	-0.312	-0.140	-0.110	0.070
72	59.0	-0.35	-0.40	-0.362	-0.140	-0.110	0.070
73	67.5	-0.35	-0.40	-0.362	-0.140	-0.110	0.070
74	77.5	-0.35	-0.40	-0.362	-0.140	-0.110	0.070
75	87.5	-0.35	-0.40	-0.362	-0.140	-0.110	0.070
76	96.0	-0.35	-0.40	-0.362	-0.140	-0.110	0.070
G77	2.0	-0.05	0.08	-0.009	0.012	0.011	0.130
78	6.0	-0.10	-0.156	-0.147	-0.121	-0.091	-0.061
79	15.0	-0.15	-0.20	-0.186	-0.146	-0.116	0.071
80	27.5	-0.20	-0.26	-0.217	-0.146	-0.116	0.071
81	40.0	-0.25	-0.30	-0.267	-0.146	-0.116	0.071
82	52.5	-0.30	-0.35	-0.317	-0.146	-0.116	0.071
83	59.0	-0.35	-0.40	-0.367	-0.146	-0.116	0.071
84	67.5	-0.35	-0.40	-0.367	-0.146	-0.116	0.071
85	77.5	-0.35	-0.40	-0.367	-0.146	-0.116	0.071
86	87.5	-0.35	-0.40	-0.367	-0.146	-0.116	0.071
87	96.0	-0.35	-0.40	-0.367	-0.146	-0.116	0.071

CONFIDENTIAL



NACA

TABLE 9

 $[A = 30^\circ, b_{Bn} = 0^\circ, \alpha = 2^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE					
		cent	chord	0.60	0.80	0.85	0.90	0.925	0.96	0.60	0.80	0.85	0.90
A 1	2.0	-0.40	-0.203	-0.175	-0.100	-0.010	0						
2	6.0	-0.50	-0.180	-0.040	-0.200	-0.150	-0.016						
3	15.0	-0.285	-0.140	-0.090	-0.215	-0.198	-0.130						
4	27.5	-0.275	-0.175	-0.100	-0.200	-0.192	-0.172						
5	42.0	-	-	-	-	-	-						
6	56.0	-	-	-	-	-	-						
7	69.0	-	-	-	-	-	-						
8	77.5	-	-	-	-	-	-						
9	77.5	-	-	-	-	-	-						
10	87.5	-	-	-	-	-	-						
11	96.0	-	-	-	-	-	-						
B12	2.0	-0.50	-0.200	-0.175	-0.100	-0.010	0						
13	6.0	-0.50	-0.170	-0.100	-0.250	-0.180	-0.016						
14	15.0	-0.35	-0.185	-0.100	-0.120	-0.100	-0.016						
15	27.5	-0.35	-0.170	-0.100	-0.140	-0.100	-0.016						
16	42.0	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
17	56.0	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
18	69.0	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
19	77.5	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
20	77.5	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
21	87.5	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
22	95.5	-0.35	-0.170	-0.100	-0.150	-0.100	-0.016						
C23	2.0	-0.40	-0.130	-0.175	-0.110	-0.040	-0.016						
24	6.0	-0.40	-0.130	-0.175	-0.120	-0.050	-0.016						
25	15.0	-0.40	-0.130	-0.175	-0.130	-0.060	-0.016						
26	27.5	-0.40	-0.130	-0.175	-0.140	-0.070	-0.016						
27	42.0	-0.40	-0.130	-0.175	-0.150	-0.080	-0.016						
28	56.0	-0.40	-0.130	-0.175	-0.160	-0.090	-0.016						
29	69.0	-0.40	-0.130	-0.175	-0.170	-0.100	-0.016						
30	77.5	-0.40	-0.130	-0.175	-0.180	-0.110	-0.016						
31	77.5	-0.40	-0.130	-0.175	-0.180	-0.120	-0.016						
32	87.5	-0.40	-0.130	-0.175	-0.180	-0.130	-0.016						
33	95.5	-0.40	-0.130	-0.175	-0.180	-0.140	-0.016						
D34	2.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
35	15.0	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
36	27.5	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
37	42.0	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
38	56.0	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
39	69.0	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
40	77.5	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
41	77.5	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
42	87.5	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
43	94.5	-0.45	-0.215	-0.140	-0.200	-0.180	-0.130	-0.020					
E44	2.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
45	6.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
46	15.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
47	27.5	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
48	42.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
49	56.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
50	69.0	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
51	77.5	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
52	77.5	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
53	87.5	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
54	95.5	-0.40	-0.200	-0.140	-0.200	-0.175	-0.110	-0.020					
F55	2.0	-0.50	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
56	6.0	-0.50	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
57	15.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
58	27.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
59	42.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
60	56.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
61	69.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
62	77.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
63	77.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
64	94.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
G65	2.0	-0.50	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
66	6.0	-0.50	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
67	15.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
68	27.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
69	42.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
70	56.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
71	69.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
72	77.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
73	77.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
74	87.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
75	95.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
H76	2.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
77	6.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
78	15.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
79	27.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
80	42.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
81	56.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
82	69.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
83	77.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
84	87.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
85	94.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
I86	2.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
87	6.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
88	15.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
89	27.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
90	42.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
91	56.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
92	69.0	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
93	77.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
94	87.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					
95	94.5	-0.40	-0.200	-0.175	-0.175	-0.140	-0.120	-0.020					

CONFIDENTIAL

NACA

TABLE 10

 $[A = 30^\circ, b_{\infty} = 0^\circ, \alpha = b^\circ]$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.89	0.93	0.96	0.60	0.80	0.85	0.89	0.93	0.96
A 1	2.0	-0.710	-0.693	-0.771	-0.658	-0.571	-0.260						
2	6.0	-0.778	-0.700	-0.710	-0.610	-0.57	-0.292						
3	10.0	-0.815	-0.740	-0.782	-0.670	-0.55	-0.251						
4	27.5	-0.840	-0.760	-0.780	-0.660	-0.530	-0.258						
5	40.0	-0.850	-0.765	-0.780	-0.660	-0.530	-0.260						
6	50.0	-	-	-	-	-	-						
7	59.0	-	-	-	-	-	-						
8	67.5	-	-	-	-	-	-						
9	77.5	-	-	-	-	-	-						
10	87.5	-	-	-	-	-	-						
11	96.0	-	-	-	-	-	-						
612	2.0	-0.563	-0.770	-0.670	-0.513	-0.410	-0.140						
13	6.0	-0.624	-0.660	-0.629	-0.540	-0.460	-0.191						
14	15.0	-0.629	-0.711	-0.545	-0.470	-0.400	-0.149						
15	27.5	-0.602	-0.591	-0.660	-0.500	-0.450	-0.181						
16	40.0	-0.600	-0.671	-0.640	-0.595	-0.535	-0.160						
17	50.0	-0.634	-0.600	-0.704	-0.610	-0.560	-0.161						
18	59.0	-0.634	-0.600	-0.704	-0.610	-0.560	-0.161						
19	67.5	-0.634	-0.600	-0.704	-0.610	-0.560	-0.161						
20	77.5	-0.634	-0.600	-0.704	-0.610	-0.560	-0.161						
21	86.0	-0.634	-0.600	-0.704	-0.610	-0.560	-0.161						
22	95.5	-0.100	-0.151	-0.190	-0.191	-0.151	-0.000						
613	2.0	-0.930	-0.760	-0.690	-0.582	-0.433	-0.340						
24	6.0	-0.718	-0.760	-0.700	-0.610	-0.540	-0.400						
25	15.0	-0.782	-0.660	-0.700	-0.610	-0.540	-0.400						
26	27.5	-0.742	-0.700	-0.711	-0.610	-0.540	-0.400						
27	40.0	-0.742	-0.700	-0.711	-0.610	-0.540	-0.400						
28	50.0	-0.742	-0.700	-0.711	-0.610	-0.540	-0.400						
29	59.0	-0.742	-0.700	-0.711	-0.610	-0.540	-0.400						
30	67.5	-0.742	-0.700	-0.711	-0.610	-0.540	-0.400						
31	77.5	-0.742	-0.700	-0.711	-0.610	-0.540	-0.400						
32	86.0	-0.030	-0.040	-0.050	-0.051	-0.050	-0.000						
33	95.5	-0.010	-0.011	-0.000	-0.000	-0.000	-0.000						
614	2.0	-1.040	-0.910	-0.760	-0.710	-0.560	-0.370						
35	6.0	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
36	27.5	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
37	40.0	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
38	50.0	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
39	59.0	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
40	67.5	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
41	77.5	-0.610	-0.760	-0.700	-0.610	-0.516	-0.400						
42	86.0	-0.018	-0.018	-0.018	-0.018	-0.018	-0.000						
43	94.5	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
615	2.0	-1.100	-1.011	-0.963	-0.763	-0.660	-0.560						
45	6.0	-0.800	-0.738	-0.880	-0.741	-0.600	-0.500						
46	15.0	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
47	27.5	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
48	40.0	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
49	50.0	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
50	59.0	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
51	67.5	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
52	77.5	-0.604	-0.728	-0.778	-0.688	-0.583	-0.453						
53	86.5	-0.006	-0.007	-0.007	-0.007	-0.007	-0.000						
54	95.5	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
616	2.0	-1.117	-1.073	-0.928	-0.646	-0.500	-0.400						
56	6.0	-0.860	-0.777	-0.800	-0.765	-0.611	-0.518						
57	15.0	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
58	27.5	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
59	40.0	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
60	50.0	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
61	59.0	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
62	67.5	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
63	77.5	-0.740	-0.775	-0.840	-0.751	-0.600	-0.511						
64	86.5	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
617	2.0	-1.127	-1.073	-0.928	-0.646	-0.500	-0.400						
65	6.0	-0.800	-0.727	-0.828	-0.781	-0.600	-0.500						
66	15.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
67	27.5	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
68	40.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
69	50.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
70	59.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
71	67.5	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
72	77.5	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
73	86.5	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
74	94.5	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
618	2.0	-1.126	-1.081	-0.928	-0.646	-0.500	-0.400						
66	6.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
67	15.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
68	27.5	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
69	40.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
70	50.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
71	59.0	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
72	67.5	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
73	77.5	-0.706	-0.721	-0.741	-0.776	-0.600	-0.500						
74	87.2	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
75	94.5	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						
76	2.0	-1.117	-1.117	-0.870	-0.670	-0.510	-0.400						
77	6.0	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
78	15.0	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
79	27.5	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
80	40.0	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
81	50.0	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
82	59.0	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
83	67.5	-0.740	-1.110	-0.748	-0.781	-0.601	-0.444						
84	86.3	-0.010	-0.000	-0.000	-0.000	-0.000	-0.000						
85	94.2	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000						

CONFIDENTIAL

NACA

CONFIDENTIAL

TABLE II

[$\Delta = 30^\circ$, $\delta_{\infty} = 0^\circ$, $a = 7^\circ$]

CONFIDENTIAL

Tube	For- cent chord	UPPER SURFACE						LOWER SURFACE					
		Mech Number						Mech Number					
		0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0	-1.290	-1.400	-1.150	0.965	-0.885	-0.700	3.0	0.572	0.585	0.568	0.568	0.600
2	6.0	-1.292	-1.292	-1.049	-0.905	-0.668	-0.670	10.0	-	-	-	-	-
3	15.0	-1.164	-	-	-	-	-	20.0	-	-	-	-	-
4	27.5	-1.058	-	-	-	-	-	41.0	-	-	-	-	-
5	50.0	-	-	-	-	-	-	52.5	-	-	-	-	-
6	82.5	-	-	-	-	-	-	64.5	-	-	-	-	-
7	59.0	-	-	-	-	-	-	72.5	-	-	-	-	-
8	67.5	-	-	-	-	-	-	84.0	-	-	-	-	-
9	77.5	-	-	-	-	-	-	94.0	-	-	-	-	-
10	87.5	-	-	-	-	-	-	-	-	-	-	-	-
11	96.0	-	-	-	-	-	-	-	-	-	-	-	-
B12	2.0	-1.242	-1.450	-1.180	-1.000	-0.860	-0.731	-	-	-	-	-	-
13	6.0	-1.242	-1.245	-1.155	-1.001	-0.860	-0.768	10.0	-	-	-	-	-
14	15.0	-1.050	-1.190	-1.010	-0.892	-0.778	-0.695	20.0	-	-	-	-	-
15	27.5	-1.050	-	-	-	-	-	41.0	-	-	-	-	-
16	40.0	-	-	-	-	-	-	52.5	-	-	-	-	-
17	50.0	-	-	-	-	-	-	64.5	-	-	-	-	-
18	59.0	-	-	-	-	-	-	72.5	-	-	-	-	-
19	67.5	-	-	-	-	-	-	84.0	-	-	-	-	-
20	77.5	-	-	-	-	-	-	94.0	-	-	-	-	-
21	88.0	-	-	-	-	-	-	-	-	-	-	-	-
22	95.5	-	-	-	-	-	-	-	-	-	-	-	-
C23	2.0	-	-	-	-	-	-	10.0	-	-	-	-	-
24	6.0	-1.311	-1.410	-1.180	-1.080	-0.960	-0.760	20.0	-	-	-	-	-
25	15.0	-1.270	-1.270	-1.090	-0.924	-0.860	-0.771	41.0	-	-	-	-	-
26	27.5	-	-	-	-	-	-	52.5	-	-	-	-	-
27	40.0	-	-	-	-	-	-	64.5	-	-	-	-	-
28	50.0	-	-	-	-	-	-	72.5	-	-	-	-	-
29	59.0	-	-	-	-	-	-	84.0	-	-	-	-	-
30	67.5	-	-	-	-	-	-	94.0	-	-	-	-	-
31	77.5	-	-	-	-	-	-	-	-	-	-	-	-
32	88.0	-	-	-	-	-	-	-	-	-	-	-	-
33	95.5	-	-	-	-	-	-	-	-	-	-	-	-
D44	2.0	-1.297	-1.405	-1.170	-1.008	-0.866	-0.700	10.0	-	-	-	-	-
35	6.0	-1.297	-1.350	-1.170	-1.010	-0.860	-0.778	20.0	-	-	-	-	-
36	27.5	-1.047	-1.190	-1.140	-1.019	-0.864	-0.711	41.0	-	-	-	-	-
37	40.0	-	-	-	-	-	-	52.5	-	-	-	-	-
38	50.0	-	-	-	-	-	-	64.5	-	-	-	-	-
39	59.0	-	-	-	-	-	-	72.5	-	-	-	-	-
40	67.5	-	-	-	-	-	-	84.0	-	-	-	-	-
41	77.5	-	-	-	-	-	-	94.0	-	-	-	-	-
42	87.5	-	-	-	-	-	-	-	-	-	-	-	-
43	94.5	-	-	-	-	-	-	-	-	-	-	-	-
E44	2.0	-1.290	-1.390	-1.290	-1.083	-0.860	-0.720	10.0	-	-	-	-	-
45	6.0	-1.299	-1.452	-1.201	-1.020	-0.860	-0.778	20.0	-	-	-	-	-
46	15.0	-1.070	-1.250	-1.160	-1.000	-0.860	-0.765	41.0	-	-	-	-	-
47	27.5	-	-	-	-	-	-	52.5	-	-	-	-	-
48	40.0	-	-	-	-	-	-	64.5	-	-	-	-	-
49	50.0	-	-	-	-	-	-	72.5	-	-	-	-	-
50	59.0	-	-	-	-	-	-	84.0	-	-	-	-	-
51	67.5	-	-	-	-	-	-	94.0	-	-	-	-	-
52	77.5	-	-	-	-	-	-	-	-	-	-	-	-
53	86.5	-	-	-	-	-	-	-	-	-	-	-	-
54	95.5	-	-	-	-	-	-	-	-	-	-	-	-
F45	2.0	-1.295	-1.395	-1.295	-1.070	-0.860	-0.700	10.0	-	-	-	-	-
55	6.0	-1.298	-1.468	-1.208	-1.047	-0.860	-0.771	20.0	-	-	-	-	-
56	15.0	-1.160	-1.360	-1.160	-1.011	-0.860	-0.768	41.0	-	-	-	-	-
57	27.5	-	-	-	-	-	-	52.5	-	-	-	-	-
58	40.0	-	-	-	-	-	-	64.5	-	-	-	-	-
59	50.0	-	-	-	-	-	-	72.5	-	-	-	-	-
60	59.0	-	-	-	-	-	-	84.0	-	-	-	-	-
61	67.5	-	-	-	-	-	-	94.0	-	-	-	-	-
62	77.5	-	-	-	-	-	-	-	-	-	-	-	-
63	86.5	-	-	-	-	-	-	-	-	-	-	-	-
64	94.5	-	-	-	-	-	-	-	-	-	-	-	-
G45	2.0	-1.295	-1.403	-1.270	-1.039	-0.860	-0.731	10.0	-	-	-	-	-
65	6.0	-1.295	-1.453	-1.203	-1.040	-0.860	-0.771	20.0	-	-	-	-	-
66	15.0	-1.164	-1.364	-1.164	-1.012	-0.860	-0.768	41.0	-	-	-	-	-
67	27.5	-1.071	-1.304	-1.115	-1.012	-0.860	-0.765	52.5	-	-	-	-	-
68	40.0	-	-	-	-	-	-	64.5	-	-	-	-	-
69	50.0	-	-	-	-	-	-	72.5	-	-	-	-	-
70	59.0	-	-	-	-	-	-	84.0	-	-	-	-	-
71	67.5	-	-	-	-	-	-	94.0	-	-	-	-	-
72	77.5	-	-	-	-	-	-	-	-	-	-	-	-
73	87.5	-	-	-	-	-	-	-	-	-	-	-	-
74	97.5	-	-	-	-	-	-	-	-	-	-	-	-
75	96.0	.078	-.090	-.118	-.177	-.171	-.600	-	-	-	-	-	-
H76	2.0	-1.260	-1.210	-1.000	-0.870	-0.860	-0.695	10.0	-	-	-	-	-
77	6.0	-1.260	-1.246	-1.000	-0.870	-0.860	-0.768	20.0	-	-	-	-	-
78	15.0	-1.068	-1.268	-1.046	-0.871	-0.861	-0.761	41.0	-	-	-	-	-
79	27.5	-1.070	-1.270	-1.048	-0.871	-0.861	-0.761	52.5	-	-	-	-	-
80	40.0	-	-	-	-	-	-	64.5	-	-	-	-	-
81	50.0	-	-	-	-	-	-	72.5	-	-	-	-	-
82	59.0	-	-	-	-	-	-	84.0	-	-	-	-	-
83	67.5	-	-	-	-	-	-	94.0	-	-	-	-	-
84	88.3	-	-	-	-	-	-	-	-	-	-	-	-
85	94.2	-	-	-	-	-	-	-	-	-	-	-	-

CONFIDENTIAL



TABLE 12

 $[A = 30^\circ, b_{\text{tip}} = 0^\circ, \alpha = 10^\circ]$

Tube	Per- cent chord	UPPER SURFACE		CONFIDENTIAL		LOWER SURFACE	
				Mach Number			
		0.60	0.80				
A 1	2.0	-1.177	-1.675				
2	4.0	-1.100	-1.500				
3	15.0	-1.717	-1.040				
4	27.5	-1.670	-1.045				
5	40.0	--	--				
6	50.0	--	--				
7	59.0	--	--				
8	67.5	--	--				
9	75.0	--	--				
10	87.5	--	--				
11	94.0	--	--				
612	2.0	-1.156	-1.670				
13	6.0	-1.121	-1.615				
14	15.0	-1.498	-1.565				
15	27.5	-1.281	-1.045				
16	40.0	-1.630	-1.045				
17	50.0	-1.500	-1.040				
18	59.0	-1.504	-1.041				
19	67.5	-1.411	-1.040				
20	77.5	-1.300	-1.040				
21	86.0	-1.190	-1.033				
22	95.3	--	--				
G3	2.0	-1.156	-1.670				
24	6.0	-1.119	-1.620				
25	15.0	-1.110	-1.620				
26	27.5	-1.200	-1.040				
27	40.0	-1.390	-1.040				
28	50.0	-1.296	-1.040				
29	59.0	-1.298	-1.040				
30	67.5	-1.208	-1.040				
31	77.5	-1.118	-1.040				
32	86.0	-1.187	-1.040				
33	95.3	-1.090	-1.040				
D4	2.0	-1.264	-1.490				
35	15.0	-1.268	-1.210				
36	27.5	-1.280	-1.210				
37	40.0	-1.780	-1.215				
38	50.0	-1.700	-1.215				
39	67.5	-1.600	-1.215				
41	77.5	-1.420	-1.210				
42	87.5	-1.260	-1.210				
43	94.2	-1.18	-1.210				
F4	2.0	-1.771	-0.848				
45	6.0	-1.754	-0.801				
46	15.0	-1.754	-0.801				
47	27.5	-1.711	-0.801				
48	40.0	-1.640	-0.766				
49	50.0	-1.580	-0.718				
50	59.0	-1.584	-0.718				
51	67.5	-1.504	-0.684				
52	77.5	-1.400	-0.681				
53	86.0	-1.045	-0.570				
54	95.3	--	-0.539				
F5	2.0	-1.601	-0.960				
56	6.0	-1.600	-0.901				
57	15.0	-1.604	-0.904				
58	27.5	-1.608	-0.708				
59	40.0	-1.570	-0.618				
60	50.0	-1.529	-0.578				
61	59.0	-1.529	-0.578				
62	67.5	-1.499	-0.581				
63	77.5	-1.470	-0.517				
64	86.0	--	--				
65	2.0	-1.606	-0.756				
66	6.0	-1.600	-0.750				
67	15.0	-1.604	-0.750				
68	27.5	-1.608	-0.601				
69	40.0	-1.570	-0.599				
70	50.0	-1.530	-0.512				
71	59.0	-1.526	-0.498				
72	67.5	-1.411	-0.473				
73	77.5	-1.396	-0.451				
74	87.5	--	--				
75	95.3	-1.276	-0.313				
H76	2.0	-1.506	-0.537				
77	6.0	-1.500	-0.503				
78	15.0	-1.510	-0.483				
79	27.5	-1.461	-0.450				
80	40.0	-1.420	-0.441				
81	50.0	-1.399	-0.430				
82	59.0	-1.391	-0.416				
83	67.5	-1.369	-0.406				
84	77.5	-1.298	-0.353				
85	94.2	-1.281	-0.339				

CONFIDENTIAL

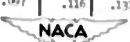


TABLE 13

 $[A = 45^\circ, S_{sh} = 0^\circ, \alpha = -45^\circ]$

Tube	Per-	en-	CONFIDENTIAL						LOWER SURFACE					
			UPPER SURFACE						Mach Number					
			chord	0.60	0.80	0.80	0.90	0.96	0.60	0.80	0.80	0.90	0.96	
A 1	2.0	0.230	0.251	0.259	0.270	0.275								
2	6.0	.093	.115	.120	.125	.125								
3	15.0	.000	.021	.030	.035	.035								
4	27.5	-.005	-.005	-.005	-.005	-.005								
5	40.0	---	---	---	---	---								
6	52.5	---	---	---	---	---								
7	59.0	---	---	---	---	---								
8	67.5	---	---	---	---	---								
9	77.5	---	---	---	---	---								
10	87.5	---	---	---	---	---								
11	96.0	---	---	---	---	---								
612	2.0	---	---	---	---	---								
13	6.0	---	---	---	---	---								
14	15.0	-.021	-.024	-.026	-.025	-.028								
15	27.5	-.105	-.100	-.100	-.095	-.098								
16	40.0	-.190	-.193	-.185	-.185	-.180								
17	50.0	-.160	-.171	-.170	-.170	-.160								
18	59.0	-.188	-.183	-.173	-.170	-.160								
19	67.5	---	---	---	---	---								
20	77.5	---	---	---	---	---								
21	86.0	---	---	---	---	---								
22	95.3	---	---	---	---	---								
623	2.0	.298	.260	.215	.219	.201								
24	6.0	.060	.070	.066	.069	.069								
25	15.0	-.095	-.093	-.097	-.093	-.091								
26	27.6	-.130	-.133	-.121	-.125	-.125								
27	40.0	-.179	-.180	-.186	-.186	-.180								
28	50.0	-.140	-.140	-.140	-.140	-.140								
29	59.0	-.180	-.180	-.180	-.180	-.180								
30	67.5	-.120	-.120	-.120	-.120	-.120								
31	77.5	-.100	-.100	-.100	-.100	-.100								
32	86.0	-.005	-.041	-.060	-.120	-.200								
33	95.3	.068	.045	.019	.019	.011								
764	2.0	.197	.205	.196	.185	.160								
35	15.0	-.100	-.100	-.090	-.100	-.101								
36	27.5	-.130	-.130	-.131	-.131	-.121								
37	40.0	-.181	-.181	-.181	-.180	-.181								
38	50.0	-.190	-.191	-.191	-.190	-.190								
39	59.0	-.090	-.101	-.101	-.100	-.101								
40	67.5	-.120	-.120	-.120	-.120	-.120								
41	77.5	-.071	-.087	-.100	-.110	-.120								
42	87.5	-.005	-.009	-.019	-.014	-.010								
43	94.2	.148	.090	.041	.000	.000								
644	2.0	.245	.250	.250	.254	.230								
45	6.0	.058	.058	.050	.040	.030								
46	15.0	-.058	-.078	-.067	-.067	-.058								
47	27.5	-.128	-.120	-.118	-.118	-.121								
48	40.0	-.175	-.175	-.173	-.173	-.175								
49	50.0	-.180	-.180	-.180	-.180	-.180								
50	59.0	-.180	-.180	-.180	-.180	-.180								
51	67.5	-.120	-.120	-.120	-.120	-.120								
52	77.5	-.070	-.074	-.068	-.068	-.063								
53	86.0	.135	.121	.111	.110	.100								
54	95.3	.078	.078	.070	.070	.060								
655	2.0	.266	.235	.208	.192	.210								
55	6.0	.060	.064	.060	.060	.050								
56	15.0	-.098	-.098	-.090	-.080	-.080								
57	27.5	-.130	-.130	-.120	-.120	-.120								
58	40.0	-.170	-.170	-.170	-.170	-.171								
59	50.0	-.170	-.170	-.170	-.170	-.170								
60	59.0	-.165	-.165	-.165	-.165	-.165								
61	68.0	-.115	-.115	-.110	-.110	-.110								
62	77.5	-.112	-.112	-.112	-.112	-.112								
63	86.5	---	---	---	---	---								
64	94.5	---	---	---	---	---								
665	2.0	.260	.260	.260	.269	.298								
66	6.0	.060	.060	.060	.060	.076								
67	15.0	-.078	-.042	-.050	-.050	-.048								
68	27.5	-.100	-.120	-.110	-.110	-.120								
69	40.0	-.150	-.170	-.160	-.160	-.150								
70	50.0	-.154	-.154	-.150	-.150	-.150								
71	59.0	-.125	-.125	-.120	-.120	-.120								
72	67.5	-.125	-.125	-.120	-.120	-.120								
73	77.5	-.095	-.117	-.125	-.120	-.110								
74	87.5	-.075	-.102	-.098	-.090	-.088								
75	96.6	.086	.060	.060	.060	.100								
766	2.0	.155	.158	.160	.167	.173								
77	6.0	.010	.000	-.010	-.010	-.016								
78	15.0	-.070	-.094	-.112	-.101	-.116								
79	27.5	-.120	-.120	-.120	-.120	-.120								
80	40.0	-.160	-.153	-.140	-.137	-.131								
81	50.0	-.158	-.158	-.150	-.149	-.148								
82	59.0	-.112	-.112	-.110	-.110	-.110								
83	67.6	-.098	-.111	-.110	-.110	-.110								
84	78.3	.028	.020	.020	.020	.120								
85	94.2	.098	.090	.114	.128	.148								

CONFIDENTIAL



CONFIDENTIAL

TABLE 14

 $[\Delta = 45^\circ, \delta_{sh} = 0^\circ, \alpha = 2^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE					Mech Number	Mech Number
		cent	chord	Mech Number				Mech Number	0.60	0.80	0.89	0.905	0.96
				0.60	0.80	0.89	0.905						
A 1	2.0	-0.180	-0.130	-0.103	-0.068	-0.105							
2	6.0	-0.190	-0.170	-0.141	-0.111	-0.060							
3	15.0	-0.183	-0.170	-0.150	-0.125	-0.060							
4	27.5	-0.169	-0.169	-0.145	-0.120	-0.060							
5	40.0	-	-	-	-	-							
6	52.5	-	-	-	-	-							
7	65.0	-	-	-	-	-							
8	67.5	-	-	-	-	-							
9	77.5	-	-	-	-	-							
10	87.5	-	-	-	-	-							
11	96.0	-	-	-	-	-							
12	2.0	-	-	-	-	-							
13	6.0	-	-	-	-	-							
14	15.0	-0.280	-0.258	-0.201	-0.200	-0.098							
15	27.5	-0.293	-0.269	-0.205	-0.204	-0.096							
16	40.0	-0.270	-0.255	-0.205	-0.204	-0.091							
17	50.0	-0.260	-0.250	-0.201	-0.204	-0.090							
18	53.0	-0.231	-0.275	-0.115	-0.101	-0.135							
19	67.5	-	-	-	-	-							
20	77.5	-	-	-	-	-							
21	86.0	-	-	-	-	-							
22	95.5	-	-	-	-	-							
C53	2.0	-0.280	-0.250	-0.210	-0.164	-0.010							
24	6.0	-0.275	-0.271	-0.200	-0.160	-0.010							
25	15.0	-0.280	-0.258	-0.205	-0.160	-0.010							
26	27.5	-0.291	-0.267	-0.215	-0.160	-0.010							
27	40.0	-0.270	-0.257	-0.210	-0.160	-0.010							
28	50.0	-0.260	-0.251	-0.210	-0.161	-0.010							
29	53.0	-0.270	-0.250	-0.210	-0.160	-0.010							
30	67.5	-0.211	-0.208	-0.140	-0.100	-0.040							
31	77.5	-0.200	-0.200	-0.115	-0.080	-0.020							
32	86.0	-0.063	-0.061	-0.120	-0.080	-0.020							
33	95.5	-0.060	-0.060	-0.099	-0.060	-0.020							
D54	2.0	-0.367	-0.361	-0.311	-0.250	-0.072							
35	15.0	-0.301	-0.337	-0.365	-0.341	-0.173							
36	27.5	-0.303	-0.350	-0.310	-0.300	-0.193							
37	40.0	-0.300	-0.372	-0.340	-0.300	-0.193							
38	50.0	-0.300	-0.360	-0.340	-0.300	-0.193							
39	53.0	-0.300	-0.360	-0.340	-0.300	-0.193							
40	67.5	-0.193	-0.200	-0.200	-0.171	-0.100							
41	77.5	-0.103	-0.100	-0.080	-0.100	-0.080							
42	87.5	-0.081	-0.080	-0.060	-0.080	-0.060							
43	94.2	-0.060	-0.060	-0.050	-0.060	-0.060							
F44	2.0	-0.360	-0.360	-0.310	-0.250	-0.070							
44	6.0	-0.360	-0.360	-0.310	-0.250	-0.070							
45	15.0	-0.360	-0.360	-0.310	-0.250	-0.070							
46	27.5	-0.360	-0.360	-0.310	-0.250	-0.070							
47	40.0	-0.360	-0.360	-0.310	-0.250	-0.070							
48	50.0	-0.360	-0.360	-0.310	-0.250	-0.070							
49	53.0	-0.360	-0.360	-0.310	-0.250	-0.070							
50	67.5	-0.293	-0.301	-0.261	-0.201	-0.173							
51	77.5	-0.194	-0.210	-0.180	-0.160	-0.133							
52	86.0	-0.098	-0.098	-0.100	-0.100	-0.100							
53	90.5	-0.090	-0.090	-0.100	-0.100	-0.100							
54	95.5	-0.079	-0.079	-0.079	-0.079	-0.079							
F55	2.0	-0.450	-0.430	-0.400	-0.368	-0.115							
56	6.0	-0.450	-0.430	-0.410	-0.380	-0.115							
57	15.0	-0.310	-0.363	-0.420	-0.440	-0.190							
58	27.5	-0.298	-0.363	-0.420	-0.458	-0.190							
59	40.0	-0.300	-0.366	-0.420	-0.457	-0.190							
60	50.0	-0.300	-0.360	-0.420	-0.456	-0.190							
61	53.0	-0.300	-0.360	-0.420	-0.456	-0.190							
62	67.5	-0.295	-0.360	-0.420	-0.456	-0.190							
63	86.5	-0.169	-0.169	-0.176	-0.191	-0.168							
64	94.5	-	-	-	-	-							
G65	2.0	-0.450	-0.453	-0.405	-0.363	-0.104							
66	6.0	-0.351	-0.400	-0.450	-0.500	-0.149							
67	15.0	-0.300	-0.350	-0.410	-0.454	-0.143							
68	27.5	-0.298	-0.350	-0.410	-0.453	-0.143							
69	40.0	-0.298	-0.350	-0.410	-0.453	-0.143							
70	50.0	-0.295	-0.350	-0.410	-0.453	-0.143							
71	52.0	-0.218	-0.295	-0.295	-0.210	-0.139							
72	67.5	-0.140	-0.153	-0.153	-0.136	-0.121							
73	77.5	-0.050	-0.050	-0.051	-0.050	-0.050							
74	87.2	-	-	-	-	-							
75	96.5	-0.050	-0.050	-0.110	-0.113	-0.123							
H76	2.0	-0.498	-0.483	-0.450	-0.400	-0.137							
77	6.0	-0.390	-0.387	-0.481	-0.503	-0.148							
78	15.0	-0.266	-0.320	-0.390	-0.480	-0.140							
79	27.5	-0.251	-0.303	-0.398	-0.480	-0.140							
80	40.0	-0.250	-0.301	-0.395	-0.476	-0.136							
81	50.0	-0.250	-0.300	-0.390	-0.477	-0.136							
82	59.0	-0.180	-0.288	-0.280	-0.172	-0.093							
83	67.5	-0.110	-0.093	-0.096	-0.013	-0.006							
84	98.3	-0.058	-0.077	-0.100	-0.100	-0.104							
85	94.2	-0.055	-0.076	-0.100	-0.104	-0.105							
I150	3.0	-0.493	-0.481	-0.451	-0.400	-0.130							
I51	10.0	-0.301	-0.311	-0.301	-0.300	-0.120							
I52	25.0	-0.208	-0.209	-0.198	-0.198	-0.120							
I53	41.0	-	-	-	-	-							
I54	58.5	-0.053	-0.050	-0.056	-0.056	-0.056							
I55	65.5	-0.016	-0.026	-0.032	-0.032	-0.036							
I56	72.5	-0.000	-0.016	-0.011	-0.011	-0.019							
I57	84.0	-0.007	-0.011	-0.015	-0.015	-0.019							
I58	97.0	-	-	-	-	-							

NACA

CONFIDENTIAL

TABLE 15

 $[A = 45^\circ, R_m = 0^\circ, \alpha = 7^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE						
		cent	chord	Mach Number				cent	chord	Mach Number			
				0.60	0.80	0.89	0.925			0.60	0.80	0.89	0.925
A 1	2.0	-1.150	-1.180	-1.000	-1.150	-1.100	-0.760						
2	4.0	-1.070	-1.020	-0.940	-0.890	-0.870	-0.770						
3	12.0	-1.040	-1.030	-0.940	-0.890	-0.870	-0.770						
4	27.5	-1.040	-1.030	-0.940	-0.890	-0.870	-0.770						
5	40.0	-	-	-	-	-	-						
6	50.0	-	-	-	-	-	-						
7	59.0	-	-	-	-	-	-						
8	67.5	-	-	-	-	-	-						
9	77.5	-	-	-	-	-	-						
10	87.5	-	-	-	-	-	-						
11	96.0	-	-	-	-	-	-						
612	2.0	-	-	-	-	-	-						
13	6.0	-	-	-	-	-	-						
14	15.0	-0.915	-0.930	-0.945	-0.970	-0.980	-0.980						
15	27.5	-0.950	-0.960	-0.965	-0.975	-0.980	-0.980						
16	40.0	-0.940	-0.950	-0.955	-0.960	-0.965	-0.965						
17	50.0	-0.940	-0.950	-0.955	-0.960	-0.965	-0.965						
18	59.0	-0.940	-0.950	-0.955	-0.960	-0.965	-0.965						
19	67.5	-0.940	-0.950	-0.955	-0.960	-0.965	-0.965						
20	77.5	-	-	-	-	-	-						
21	86.0	-	-	-	-	-	-						
22	95.5	-	-	-	-	-	-						
613	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
14	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
15	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
16	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
17	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
18	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
19	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
20	67.5	-1.190	-1.180	-1.090	-1.100	-0.990							
21	77.5	-	-	-	-	-							
22	86.0	-	-	-	-	-							
23	95.5	-	-	-	-	-							
614	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
35	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
36	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
37	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
38	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
39	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
40	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
41	67.5	-1.190	-1.180	-1.090	-1.100	-0.990							
42	77.5	-	-	-	-	-							
43	86.0	-	-	-	-	-							
44	94.5	-	-	-	-	-							
45	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
46	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
47	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
48	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
49	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
50	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
51	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
52	67.5	-1.190	-1.180	-1.090	-1.100	-0.990							
53	77.5	-	-	-	-	-							
54	86.0	-	-	-	-	-							
55	95.5	-	-	-	-	-							
56	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
57	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
58	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
59	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
60	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
61	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
62	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
63	67.5	-1.190	-1.180	-1.090	-1.100	-0.990							
64	77.5	-	-	-	-	-							
65	86.0	-	-	-	-	-							
66	94.5	-	-	-	-	-							
67	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
68	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
69	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
70	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
71	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
72	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
73	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
74	67.5	-	-	-	-	-							
75	77.5	-	-	-	-	-							
76	86.0	-	-	-	-	-							
77	94.5	-	-	-	-	-							
78	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
79	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
80	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
81	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
82	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
83	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
84	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
85	67.5	-	-	-	-	-							
86	77.5	-	-	-	-	-							
87	86.0	-	-	-	-	-							
88	94.5	-	-	-	-	-							
89	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
90	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
91	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
92	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
93	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
94	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
95	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
96	67.5	-	-	-	-	-							
97	77.5	-	-	-	-	-							
98	86.0	-	-	-	-	-							
99	94.5	-	-	-	-	-							
100	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
101	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
102	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
103	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
104	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
105	50.0	-1.190	-1.180	-1.090	-1.100	-0.990							
106	59.0	-1.190	-1.180	-1.090	-1.100	-0.990							
107	67.5	-	-	-	-	-							
108	77.5	-	-	-	-	-							
109	86.0	-	-	-	-	-							
110	94.5	-	-	-	-	-							
111	2.0	-1.190	-1.450	-1.160	-1.300	-0.990							
112	6.0	-1.190	-1.180	-1.100	-1.215	-0.990							
113	15.0	-1.190	-1.180	-1.090	-1.100	-0.990							
114	27.5	-1.190	-1.180	-1.090	-1.100	-0.990							
115	40.0	-1.190	-1.180	-1.090	-1.100	-0.990							
116	50.0	-1.190	-1.180	-1.090	-1.100	-0.990	</						

TABLE 16

 $\left[\Delta = 45^\circ, S_{\text{ch}} = 0^\circ, \alpha = 10^\circ \right]$

CONFIDENTIAL

Tube Num-	Per- cent chord	UPPER SURFACE					LOWER SURFACE				
		Wach Number					Wach Number				
		0.60	0.80	0.88	0.905	0.96	0.60	0.80	0.88	0.905	0.96
A 1	2.0	-1.701	-1.486	-1.272	-1.061	-	-	-	-	-	-
6	5.0	-1.700	-1.485	-1.271	-1.060	-	-	-	-	-	-
7	15.0	-1.700	-1.485	-1.271	-1.060	-	-	-	-	-	-
8	27.5	-1.485	-1.271	-1.060	-	-	-	-	-	-	-
9	40.0	-	-	-	-	-	-	-	-	-	-
10	50.0	-	-	-	-	-	-	-	-	-	-
11	60.0	-	-	-	-	-	-	-	-	-	-
12	70.0	-	-	-	-	-	-	-	-	-	-
13	80.0	-	-	-	-	-	-	-	-	-	-
14	15.0	-1.410	-1.175	-0.802	-0.601	-	-	-	-	-	-
15	27.5	-1.403	-1.166	-0.790	-0.580	-	-	-	-	-	-
16	40.0	-1.400	-1.163	-0.785	-0.576	-	-	-	-	-	-
17	50.0	-1.400	-1.163	-0.785	-0.576	-	-	-	-	-	-
18	59.0	-1.395	-1.159	-0.780	-0.570	-	-	-	-	-	-
19	77.5	-	-	-	-	-	-	-	-	-	-
20	87.5	-	-	-	-	-	-	-	-	-	-
21	96.0	-	-	-	-	-	-	-	-	-	-
22	95.3	-	-	-	-	-	-	-	-	-	-
G5	2.0	-1.985	-1.315	-1.176	-1.050	-	-	-	-	-	-
24	6.0	-1.990	-1.311	-1.179	-1.053	-	-	-	-	-	-
25	15.0	-1.980	-1.302	-1.171	-1.041	-	-	-	-	-	-
26	27.5	-1.980	-1.302	-1.171	-1.041	-	-	-	-	-	-
27	40.0	-	-	-	-	-	-	-	-	-	-
28	50.0	-1.970	-1.290	-1.161	-1.031	-	-	-	-	-	-
29	59.0	-1.967	-1.287	-1.159	-1.029	-	-	-	-	-	-
30	77.5	-1.965	-1.285	-1.158	-1.028	-	-	-	-	-	-
31	77.5	-1.960	-1.276	-1.150	-1.021	-	-	-	-	-	-
32	86.0	-1.161	-1.040	-0.931	-0.813	-	-	-	-	-	-
33	95.3	-0.910	-0.711	-0.533	-0.308	-	-	-	-	-	-
D4	2.0	-1.995	-1.180	-1.179	-1.000	-	-	-	-	-	-
35	6.0	-1.995	-1.181	-1.179	-1.001	-	-	-	-	-	-
36	27.5	-1.995	-1.181	-1.179	-1.001	-	-	-	-	-	-
37	40.0	-1.980	-1.180	-1.177	-0.997	-	-	-	-	-	-
38	50.0	-1.980	-1.180	-1.177	-0.997	-	-	-	-	-	-
39	59.0	-1.979	-1.175	-1.171	-0.993	-	-	-	-	-	-
40	67.5	-1.975	-1.174	-1.164	-0.990	-	-	-	-	-	-
41	77.5	-1.975	-1.166	-1.160	-0.986	-	-	-	-	-	-
42	87.5	-1.969	-1.160	-1.170	-0.981	-	-	-	-	-	-
43	94.5	-1.000	-0.990	-1.112	-0.990	-	-	-	-	-	-
F44	2.0	-1.990	-1.160	-1.159	-1.050	-1.050	-	-	-	-	-
45	6.0	-1.985	-1.160	-1.159	-1.052	-1.052	-	-	-	-	-
46	15.0	-1.980	-1.160	-1.159	-1.052	-1.052	-	-	-	-	-
47	27.5	-1.980	-1.160	-1.159	-1.052	-1.052	-	-	-	-	-
48	40.0	-1.979	-1.175	-1.151	-0.981	-0.981	-	-	-	-	-
49	50.0	-1.979	-1.174	-1.150	-0.980	-0.980	-	-	-	-	-
50	59.0	-1.979	-1.174	-1.150	-0.980	-0.980	-	-	-	-	-
51	67.5	-1.975	-1.174	-1.150	-0.980	-0.980	-	-	-	-	-
52	77.5	-1.975	-1.166	-1.150	-0.981	-0.981	-	-	-	-	-
53	86.0	-1.969	-1.160	-1.150	-0.981	-0.981	-	-	-	-	-
54	95.3	-1.000	-0.990	-1.122	-0.997	-0.997	-	-	-	-	-
F55	2.0	-1.695	-0.692	-0.740	-0.878	-1.050	-	-	-	-	-
56	6.0	-1.690	-0.690	-0.740	-0.866	-1.050	-	-	-	-	-
57	15.0	-1.690	-0.680	-0.740	-0.866	-1.050	-	-	-	-	-
58	27.5	-1.690	-0.680	-0.740	-0.866	-1.050	-	-	-	-	-
59	40.0	-1.690	-0.680	-0.740	-0.866	-1.050	-	-	-	-	-
60	50.0	-1.690	-0.680	-0.740	-0.866	-1.050	-	-	-	-	-
61	59.0	-1.693	-0.680	-0.748	-0.866	-1.050	-	-	-	-	-
62	67.5	-1.693	-0.680	-0.748	-0.866	-1.050	-	-	-	-	-
63	77.5	-1.693	-0.680	-0.748	-0.866	-1.050	-	-	-	-	-
64	86.0	-1.693	-0.680	-0.748	-0.867	-1.051	-	-	-	-	-
65	94.5	-	-	-	-	-	-	-	-	-	-
G66	2.0	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
67	6.0	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
68	15.0	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
69	27.5	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
70	40.0	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
71	50.0	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
72	67.5	-1.76	-0.76	-0.96	-0.430	-0.750	-	-	-	-	-
73	77.5	-1.76	-0.76	-0.96	-0.430	-0.751	-	-	-	-	-
74	87.2	-	-	-	-	-	-	-	-	-	-
75	96.8	-1.76	-0.76	-0.96	-0.430	-0.751	-	-	-	-	-
F76	2.0	-1.200	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-
77	8.0	-1.200	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-
78	15.0	-1.201	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-
79	27.5	-1.200	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-
80	40.0	-1.203	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-
81	50.0	-1.203	-0.200	-0.288	-0.301	-0.420	-	-	-	-	-
82	59.0	-1.200	-0.200	-0.288	-0.301	-0.420	-	-	-	-	-
83	68.0	-1.200	-0.200	-0.288	-0.301	-0.420	-	-	-	-	-
84	66.5	-1.201	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-
85	64.8	-1.200	-0.200	-0.288	-0.300	-0.420	-	-	-	-	-

CONFIDENTIAL

NACA

TABLE 17

 $\{ \alpha = -30^\circ, b_{\alpha_0} = 0^\circ, \alpha = -\alpha^0 \}$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE				LOWER SURFACE					
		Mach Number	0.60	0.80	0.85	0.90	Mach Number	0.60	0.80	0.85	0.90
1	2.0	--	--	--	--	--	86	5.0	--	--	--
2	6.0	--	--	--	--	--	87	10.0	--	--	--
3	15.0	--	--	--	--	--	88	25.0	--	--	--
4	27.0	--	--	--	--	--	89	41.0	--	--	--
5	30.0	--	--	--	--	--	90	55.0	-0.05	-0.10	-0.09
6	50.0	-0.100	-0.200	-0.260	-0.200		91	62.0	-0.05	-0.08	-0.01
7	58.0	-0.160	-0.180	-0.181	-0.141		92	72.5	-0.03	-0.05	-0.01
8	67.5	-0.103	-0.087	-0.090	-0.075		93	84.0	--	--	--
9	77.5	--	--	--	--		94	94.0	--	--	--
10	87.5	--	--	--	--						
11	96.0	--	--	--	--						
12	2.0	-0.200	-0.145	-0.135	-0.100		95	5.0	-0.02	-0.11	-0.000
13	6.0	-0.108	-0.120	-0.120	-0.100		96	10.0	-0.11	-0.11	-0.000
14	15.0	-0.101	-0.105	-0.105	-0.100		97	25.0	-0.08	-0.10	-0.012
15	27.5	-0.200	-0.270	-0.370	-0.270		98	41.0	-0.25	-0.24	-0.100
16	40.0	-0.250	-0.250	-0.241	-0.200		99	62.0	-0.18	-0.18	-0.044
17	50.0	-0.250	-0.210	-0.211	-0.161		100	64.5	-0.130	-0.115	-0.105
18	59.0	-0.250	-0.210	-0.200	-0.160		101	72.5	-0.041	-0.020	-0.044
19	67.5	-0.143	-0.160	-0.171	-0.112		102	86.5	-0.046	-0.059	-0.072
20	77.5	-0.075	-0.075	-0.060	-0.041		103	94.0	-0.102	-0.120	-0.164
21	86.0	-0.017	-0.017	-0.010	-0.009						
22	95.3	--	--	--	--						
23	2.0	.398	.160	.140	.130		104	5.0	-.610	-.711	-.731
24	6.0	.128	.160	.170	.160		105	10.0	.392	.580	.705
25	15.0	-.068	-.064	-.064	-.050		106	25.0	-.382	-.450	-.559
26	27.5	-.185	-.200	-.201	-.184		107	41.0	-.265	-.330	-.490
27	40.0	-.200	-.200	-.195	-.152		108	62.0	-.165	-.201	-.300
28	50.0	-.200	-.200	-.195	-.152		109	64.5	-.160	-.177	-.200
29	59.0	-.200	-.200	-.195	-.152		110	72.5	-.094	-.090	-.081
30	67.5	-.165	-.215	-.215	-.116		111	85.1	.010	.045	.080
31	77.5	-.075	-.075	-.060	-.031		112	94.6	.092	.120	.120
32	86.0	.036	.036	.032	.037						
33	95.3	--	--	--	--						
34	2.0	.340	.160	.140	.130		113	5.0	-.560	-.711	-.731
35	6.0	.128	.160	.170	.160		114	10.0	-.159	-.478	-.600
36	15.0	-.068	-.064	-.064	-.050		115	25.0	-.312	-.415	-.517
37	27.5	-.185	-.200	-.201	-.184		116	41.0	-.204	-.362	-.446
38	40.0	-.200	-.200	-.195	-.152		117	62.0	-.126	-.262	-.315
39	50.0	-.200	-.200	-.195	-.152		118	64.5	-.120	-.176	-.217
40	67.5	--	--	--	--		119	72.5	-.060	-.070	-.118
41	77.5	-.118	-.070	-.060	-.011		120	87.4	.049	.050	.012
42	87.5	.010	.005	.006	-.000		121	94.2	.079	.080	.053
43	94.2	.068	.070	.059	.059						
44	2.0	.350	.190	.190	.180		122	5.0	-.450	-.531	-.542
45	6.0	.100	.120	.120	.110		123	10.0	-.313	-.349	-.435
46	15.0	-.086	-.090	-.080	-.070		124	25.0	-.291	-.381	-.449
47	27.5	-.188	-.200	-.210	-.181		125	41.0	-.261	-.340	-.430
48	40.0	-.200	-.200	-.195	-.152		126	62.0	-.195	-.261	-.301
49	50.0	-.200	-.200	-.195	-.152		127	64.5	-.144	-.170	-.181
50	59.0	-.200	-.200	-.195	-.152		128	72.5	-.080	-.080	-.099
51	67.5	-.170	-.200	-.200	-.120		129	86.5	-.010	-.010	-.039
52	77.5	-.120	-.115	-.115	-.080		130	95.3	.060	.011	.000
53	86.0	.129	.129	.129	.129		131	94.1	.080	.080	.071
54	95.5	.078	.062	.062	.062						
55	2.0	.350	.190	.190	.180		132	5.0	-.461	-.545	-.565
56	6.0	.100	.120	.120	.110		133	10.0	-.311	-.380	-.410
57	15.0	-.086	-.090	-.080	-.071		134	25.0	-.290	-.360	-.430
58	27.5	-.188	-.200	-.210	-.180		135	41.0	-.260	-.329	-.390
59	40.0	-.200	-.200	-.195	-.152		136	62.0	-.190	-.250	-.310
60	50.0	-.200	-.200	-.195	-.152		137	64.5	-.141	-.160	-.164
61	59.0	-.200	-.200	-.195	-.152		138	72.5	-.080	-.092	-.069
62	67.5	-.167	-.200	-.200	-.120		139	85.4	.040	.037	.029
63	77.5	.020	.030	.030	.030		140	94.0	.058	.060	.056
64	84.5	.048	.040	.038	.038						
65	2.0	.358	.198	.198	.180		141	5.0	-.411	-.492	-.518
66	6.0	.108	.125	.125	.110		142	10.0	-.307	-.380	-.420
67	15.0	-.068	-.070	-.069	-.059		143	25.0	-.272	-.330	-.400
68	27.5	-.170	-.203	-.210	-.170		144	41.0	-.240	-.309	-.350
69	40.0	-.260	-.300	-.300	-.200		145	62.5	-.181	-.251	-.289
70	50.0	-.236	-.300	-.300	-.200		146	62.5	-.111	-.150	-.156
71	59.0	-.196	-.245	-.245	-.156		147	72.5	-.048	-.069	-.080
72	67.5	-.120	-.200	-.200	-.120		148	84.0	.016	.011	.020
73	77.5	-.120	-.120	-.120	-.080		149	92.0	.074	.075	.070
74	87.5	.070	.045	.045	.040						
75	96.5	.050	.050	.050	.050						
76	2.0	.397	-.095	.370							
77	6.0	.070	-.060	.120							
78	15.0	-.040	-.040	.040							
79	27.5	-.160	-.160	.160							
80	40.0	-.200	.078	.160							
81	50.0	-.260	.209	.160							
82	59.0	-.190	.241	.160							
83	67.5	-.140	.172	.160							
84	77.5	-.006	.015	.060							
85	94.2	--	--	--							

CONFIDENTIAL

NACA

TABLE 19

[$\Lambda = -30^\circ$, $b_{\alpha_0} = 0^\circ$, $a = 2^\circ$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE					
		cent	chord	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.240	-0.240	-0.181	-0.250	-0.491	-0.772	--	--	--	--	--	--
7	59.0	-0.200	-0.154	-0.141	-0.162	-0.387	-0.581	--	--	--	--	--	--
8	67.5	-0.130	-0.111	-0.079	-0.090	-0.230	-0.470	--	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--
10	89.5	--	--	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--
B12	9.0	-1.000	-0.911	-0.788	-0.597	-0.368	-0.245	--	--	--	--	--	--
13	6.0	-0.748	-0.698	-0.600	-0.521	-0.411	-0.311	--	--	--	--	--	--
14	15.0	-0.708	-1.020	-0.507	-0.507	-0.500	-0.500	--	--	--	--	--	--
15	27.5	-0.615	-0.762	-0.505	-0.511	-0.518	-0.518	--	--	--	--	--	--
16	40.0	-0.366	-0.359	-0.362	-0.365	-0.365	-0.365	--	--	--	--	--	--
17	50.0	-0.300	-0.350	-0.441	-0.711	-0.745	-0.804	--	--	--	--	--	--
18	59.0	-0.200	-0.200	-0.162	-0.162	-0.162	-0.162	--	--	--	--	--	--
19	67.5	-0.140	-0.140	-0.106	-0.106	-0.106	-0.106	--	--	--	--	--	--
20	77.5	-0.090	-0.090	-0.050	-0.050	-0.050	-0.050	--	--	--	--	--	--
21	89.0	-0.010	-0.010	-0.010	-0.010	-0.010	-0.010	--	--	--	--	--	--
22	95.3	--	--	--	--	--	--	--	--	--	--	--	--
C13	2.0	-0.600	-0.536	-0.421	-0.376	-0.261	-0.074	--	--	--	--	--	--
24	6.0	-0.708	-0.620	-0.505	-0.487	-0.311	-0.239	--	--	--	--	--	--
25	15.0	-0.600	-0.500	-0.400	-0.400	-0.300	-0.238	--	--	--	--	--	--
26	27.5	-0.500	-0.518	-0.518	-0.518	-0.518	-0.518	--	--	--	--	--	--
27	40.0	-0.484	-0.484	-0.484	-0.484	-0.484	-0.484	--	--	--	--	--	--
28	50.0	-0.360	-0.360	-0.360	-0.360	-0.360	-0.360	--	--	--	--	--	--
29	59.0	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	--	--	--	--	--	--
30	67.5	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	--	--	--	--	--	--
31	77.5	-0.113	-0.108	-0.079	-0.091	-0.081	-0.160	--	--	--	--	--	--
32	89.0	.006	.013	.030	.017	.138	.206	--	--	--	--	--	--
33	95.3	--	--	--	--	--	--	--	--	--	--	--	--
D14	8.0	-0.748	-0.489	-0.391	-0.269	-0.168	-0.080	--	--	--	--	--	--
35	15.0	-0.800	-0.520	-0.540	-0.479	-0.401	-0.300	--	--	--	--	--	--
36	27.5	-0.588	-0.578	-0.568	-0.568	-0.568	-0.568	--	--	--	--	--	--
37	40.0	-0.582	-0.582	-0.582	-0.582	-0.582	-0.582	--	--	--	--	--	--
38	50.0	-0.400	-0.514	-0.514	-0.514	-0.514	-0.514	--	--	--	--	--	--
39	59.0	-0.315	-0.452	-0.452	-0.452	-0.452	-0.452	--	--	--	--	--	--
40	67.5	--	--	--	--	--	--	--	--	--	--	--	--
41	77.5	-0.112	-0.139	-0.135	-0.176	-0.470	-0.556	--	--	--	--	--	--
42	87.5	-0.022	-0.023	-0.038	-0.061	-0.105	-0.275	--	--	--	--	--	--
43	95.3	.004	.014	.040	.080	.027	.000	--	--	--	--	--	--
E44	4.0	-0.748	-0.500	-0.481	-0.481	-0.240	-0.100	--	--	--	--	--	--
45	9.0	-0.702	-0.500	-0.500	-0.442	-0.360	-0.270	--	--	--	--	--	--
46	15.0	-0.600	-0.500	-0.500	-0.513	-0.401	-0.371	--	--	--	--	--	--
47	27.5	-0.461	-0.460	-0.517	-0.518	-0.518	-0.518	--	--	--	--	--	--
48	40.0	-0.440	-0.440	-0.517	-0.517	-0.517	-0.517	--	--	--	--	--	--
49	50.0	-0.360	-0.420	-0.420	-0.420	-0.420	-0.420	--	--	--	--	--	--
50	59.0	-0.315	-0.489	-0.489	-0.489	-0.489	-0.489	--	--	--	--	--	--
51	67.5	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	--	--	--	--	--	--
52	77.5	-0.119	-0.139	-0.140	-0.175	-0.470	-0.556	--	--	--	--	--	--
53	89.5	.070	.070	.069	.069	.069	.069	--	--	--	--	--	--
54	95.3	.065	.065	.060	.060	.060	.060	--	--	--	--	--	--
F55	2.0	-0.748	-0.500	-0.481	-0.481	-0.240	-0.100	--	--	--	--	--	--
56	6.0	-0.702	-0.500	-0.500	-0.442	-0.360	-0.270	--	--	--	--	--	--
57	15.0	-0.600	-0.500	-0.500	-0.513	-0.401	-0.371	--	--	--	--	--	--
58	27.5	-0.461	-0.460	-0.517	-0.518	-0.518	-0.518	--	--	--	--	--	--
59	40.0	-0.440	-0.440	-0.517	-0.517	-0.517	-0.517	--	--	--	--	--	--
60	50.0	-0.360	-0.420	-0.420	-0.420	-0.420	-0.420	--	--	--	--	--	--
61	59.0	-0.315	-0.489	-0.489	-0.489	-0.489	-0.489	--	--	--	--	--	--
62	67.5	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	--	--	--	--	--	--
63	77.5	-0.119	-0.139	-0.140	-0.175	-0.470	-0.556	--	--	--	--	--	--
64	89.5	.070	.070	.069	.069	.069	.069	--	--	--	--	--	--
G65	2.0	-0.748	-0.500	-0.481	-0.481	-0.240	-0.100	--	--	--	--	--	--
66	6.0	-0.702	-0.500	-0.500	-0.442	-0.360	-0.270	--	--	--	--	--	--
67	15.0	-0.600	-0.500	-0.500	-0.513	-0.401	-0.371	--	--	--	--	--	--
68	27.5	-0.461	-0.460	-0.517	-0.518	-0.518	-0.518	--	--	--	--	--	--
69	40.0	-0.440	-0.440	-0.517	-0.517	-0.517	-0.517	--	--	--	--	--	--
70	50.0	-0.360	-0.420	-0.420	-0.420	-0.420	-0.420	--	--	--	--	--	--
71	59.0	-0.315	-0.489	-0.489	-0.489	-0.489	-0.489	--	--	--	--	--	--
72	67.5	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	--	--	--	--	--	--
73	77.5	-0.119	-0.139	-0.140	-0.175	-0.470	-0.556	--	--	--	--	--	--
74	87.5	.060	.060	.060	.060	.060	.060	--	--	--	--	--	--
75	96.8	.050	.050	.050	.050	.050	.050	--	--	--	--	--	--
H76	2.0	-0.748	-0.500	-0.481	-0.481	-0.240	-0.100	--	--	--	--	--	--
77	6.0	-0.702	-0.500	-0.500	-0.442	-0.360	-0.270	--	--	--	--	--	--
78	15.0	-0.600	-0.500	-0.500	-0.513	-0.401	-0.371	--	--	--	--	--	--
79	27.5	-0.461	-0.460	-0.517	-0.518	-0.518	-0.518	--	--	--	--	--	--
80	40.0	-0.440	-0.440	-0.517	-0.517	-0.517	-0.517	--	--	--	--	--	--
81	50.0	-0.360	-0.420	-0.420	-0.420	-0.420	-0.420	--	--	--	--	--	--
82	59.0	-0.315	-0.489	-0.489	-0.489	-0.489	-0.489	--	--	--	--	--	--
83	67.5	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	--	--	--	--	--	--
84	88.5	.050	.050	.050	.050	.050	.050	--	--	--	--	--	--
85	94.9	.010	--	--	--	--	--	--	--	--	--	--	--

CONFIDENTIAL

NACA

TABLE 22

 $\alpha = -30^\circ, \delta_{a_0} = 0^\circ, \alpha = 10^\circ$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE		LOWER SURFACE	
		cent	chord	Mach Number	Mach Number
		0.60	0.80	0.60	0.80
A 1	2.0	--	--		
3	6.0	--	--		
5	15.0	--	--		
4	27.5	--	--		
5	45.0	--	--		
6	50.0	-0.368	-0.114		
7	55.0	-0.341	-0.100		
8	57.5	-0.336	-0.090		
10	77.5	--	--		
11	87.5	--	--		
12	95.0	--	--		
B12	2.0	-0.16	-0.00		
13	6.0	-0.00	-0.00		
14	15.0	-0.00	-0.00		
15	27.5	-0.00	-0.00		
16	45.0	-0.00	-0.00		
17	50.0	-0.00	-0.00		
18	55.0	-0.00	-0.00		
19	57.5	-0.00	-0.00		
20	77.5	-0.00	-0.00		
21	86.0	-0.00	-0.00		
22	95.5	--	--		
C23	2.0	-0.00	-0.00		
24	6.0	-0.00	-0.00		
25	15.0	-0.00	-0.00		
26	27.5	-0.00	-0.00		
27	45.0	-0.00	-0.00		
28	50.0	-0.00	-0.00		
29	55.0	-0.00	-0.00		
30	57.5	-0.00	-0.00		
31	77.5	-0.00	-0.00		
32	86.0	-0.00	-0.00		
33	95.5	--	--		
D44	2.0	-0.00	-0.00		
35	6.0	-0.00	-0.00		
36	15.0	-0.00	-0.00		
37	27.5	-0.00	-0.00		
38	45.0	-0.00	-0.00		
39	50.0	-0.00	-0.00		
40	55.0	-0.00	-0.00		
41	57.5	-0.00	-0.00		
42	77.5	-0.00	-0.00		
43	84.0	-0.00	-0.00		
E44	2.0	-0.90	-1.00		
45	6.0	-0.90	-1.00		
46	15.0	-0.90	-1.00		
47	27.5	-0.90	-1.00		
48	45.0	-0.90	-1.00		
49	50.0	-0.90	-1.00		
50	55.0	-0.90	-1.00		
51	57.5	-0.90	-1.00		
52	77.5	-0.90	-1.00		
53	86.0	-0.90	-1.00		
54	95.5	-0.90	-1.00		
F44	2.0	-1.16	-1.00		
55	6.0	-1.10	-1.00		
56	15.0	-1.10	-1.00		
57	27.5	-1.10	-1.00		
58	45.0	-1.10	-1.00		
59	50.0	-1.00	-0.90		
60	55.0	-1.00	-0.90		
61	57.5	-0.90	-0.80		
62	77.5	-0.90	-0.80		
63	86.0	-0.90	-0.80		
64	94.0	-0.90	-0.80		
G44	2.0	-1.16	-1.00		
65	6.0	-1.10	-1.00		
66	15.0	-1.10	-1.00		
67	27.5	-1.10	-1.00		
68	45.0	-1.10	-1.00		
69	50.0	-1.00	-0.90		
70	55.0	-1.00	-0.90		
71	57.5	-0.90	-0.80		
72	77.5	-0.90	-0.80		
73	77.5	-0.80	-0.70		
74	87.5	-0.70	-0.60		
75	95.0	-0.60	-0.50		
H75	2.0	-0.100	-1.00		
76	6.0	-0.100	-1.00		
77	15.0	-0.100	-1.00		
78	27.5	-0.100	-1.00		
79	45.0	-0.100	-1.00		
80	50.0	-0.100	-0.90		
81	55.0	-0.100	-0.90		
82	57.5	-0.100	-0.90		
83	77.5	-0.100	-0.90		
84	86.0	-0.100	-0.90		
85	94.0	--	--		

CONFIDENTIAL



TABLE 24

$$[A = -45^\circ, \delta_m = 0^\circ, \alpha = 2^\circ]$$

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.89	0.925	0.96		0.60	0.80	0.89	0.925	0.96	
A 1	2.0	—	—	—	—	—		—	—	—	—	—	
2	6.0	—	—	—	—	—		—	—	—	—	—	
3	15.0	—	—	—	—	—		—	—	—	—	—	
4	27.5	—	—	—	—	—		—	—	—	—	—	
5	45.0	—	—	—	—	—		—	—	—	—	—	
6	67.5	—	—	—	—	—		—	—	—	—	—	
7	87.5	—	-0.103	-0.100	-0.098	-0.093	-0.083	—	—	—	—	—	
8	77.5	-0.076	-0.070	-0.068	-0.065	-0.063	-0.060	—	—	—	—	—	
9	67.5	—	—	—	—	—	—	—	—	—	—	—	
10	57.5	—	—	—	—	—	—	—	—	—	—	—	
11	45.0	—	—	—	—	—	—	—	—	—	—	—	
612	2.0	—	—	—	—	—	—	—	—	—	—	—	
13	6.0	—	—	—	—	—	—	—	—	—	—	—	
14	15.0	—	—	—	—	—	—	—	—	—	—	—	
15	27.5	-0.058	-0.051	-0.049	-0.048	-0.047	-0.046	-0.045	—	—	—	—	
16	40.0	-0.058	-0.051	-0.049	-0.048	-0.047	-0.046	-0.045	-0.044	—	—	—	
17	50.0	-0.058	-0.051	-0.049	-0.048	-0.047	-0.046	-0.045	-0.044	-0.043	—	—	
18	59.0	-0.058	-0.051	-0.049	-0.048	-0.047	-0.046	-0.045	-0.044	-0.043	-0.042	—	
19	67.5	-0.058	-0.051	-0.049	-0.048	-0.047	-0.046	-0.045	-0.044	-0.043	-0.042	-0.041	
20	77.5	-0.056	-0.058	-0.058	-0.053	-0.053	-0.052	-0.052	-0.051	-0.051	-0.051	-0.051	
21	65.0	.008	.010	.009	.008	.007	.006	.005	—	—	—	—	
22	55.5	—	—	—	—	—	—	—	—	—	—	—	
623	2.0	-0.460	-0.703	-0.587	-0.510	-0.410	—	—	—	—	—	—	
24	6.0	-0.110	-0.098	-0.080	-0.070	-0.060	-0.050	-0.040	—	—	—	—	
25	15.0	-0.111	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
26	27.5	-0.118	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
27	40.0	-0.108	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
28	50.0	-0.098	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
29	59.0	-0.098	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
30	67.5	-0.098	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
31	77.5	-0.098	-0.078	-0.058	-0.040	-0.030	-0.020	-0.010	—	—	—	—	
32	67.5	.000	.000	.000	.000	.000	.000	.000	—	—	—	—	
33	55.5	—	—	—	—	—	—	—	—	—	—	—	
634	2.0	-0.450	-0.481	-0.438	-0.398	-0.340	-0.210	—	—	—	—	—	
35	15.0	-0.118	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
36	27.5	-0.118	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
37	40.0	-0.108	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
38	50.0	-0.098	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
39	59.0	-0.098	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
40	67.5	-0.098	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
41	77.5	-0.098	-0.098	-0.078	-0.058	-0.040	-0.020	-0.010	—	—	—	—	
42	67.5	.000	.000	.000	.000	.000	.000	.000	—	—	—	—	
43	54.5	.015	.000	.000	.000	.000	.000	.000	—	—	—	—	
44	2.0	-0.421	-0.471	-0.435	-0.395	-0.340	-0.210	—	—	—	—	—	
45	6.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
46	15.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
47	27.5	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
48	40.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
49	50.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
50	59.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
51	67.5	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
52	77.5	-0.098	-0.093	-0.078	-0.058	-0.030	-0.020	-0.010	—	—	—	—	
53	68.5	.005	.015	.015	.010	.005	.000	.000	—	—	—	—	
54	55.5	.000	.000	.000	.000	.000	.000	.000	—	—	—	—	
755	2.0	—	—	—	—	—	—	—	—	—	—	—	
56	6.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
57	15.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
58	27.5	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
59	40.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
60	50.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
61	59.0	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
62	67.5	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
63	77.5	-0.111	-0.091	-0.071	-0.051	-0.030	-0.020	-0.010	—	—	—	—	
64	64.5	.000	.001	.001	.001	.001	.000	.000	—	—	—	—	
665	2.0	-0.468	-0.390	-0.372	-0.311	-0.260	-0.110	—	—	—	—	—	
66	6.0	-0.271	-0.190	-0.165	-0.128	-0.098	-0.066	—	—	—	—	—	
67	15.0	-0.250	-0.190	-0.165	-0.128	-0.098	-0.066	—	—	—	—	—	
68	27.5	-0.275	-0.195	-0.170	-0.135	-0.105	-0.071	—	—	—	—	—	
69	40.0	-0.241	-0.275	-0.195	-0.170	-0.135	-0.105	—	—	—	—	—	
70	50.0	-0.241	-0.275	-0.195	-0.170	-0.135	-0.105	—	—	—	—	—	
71	59.0	-0.241	-0.275	-0.195	-0.170	-0.135	-0.105	—	—	—	—	—	
72	67.5	-0.240	-0.274	-0.194	-0.170	-0.135	-0.105	—	—	—	—	—	
73	77.5	-0.240	-0.274	-0.194	-0.170	-0.135	-0.105	—	—	—	—	—	
74	67.5	.000	.000	.000	.010	.010	.000	.000	—	—	—	—	
75	56.5	.000	.001	.001	.010	.010	.000	.000	—	—	—	—	
767	2.0	-0.493	-0.293	-0.260	-0.170	-0.110	-0.060	—	—	—	—	—	
77	6.0	-0.211	-0.249	-0.216	-0.187	-0.157	-0.106	—	—	—	—	—	
76	15.0	-0.200	-0.220	-0.200	-0.170	-0.140	-0.105	—	—	—	—	—	
79	27.5	-0.193	-0.211	-0.215	-0.186	-0.156	-0.107	—	—	—	—	—	
80	40.0	-0.200	-0.215	-0.211	-0.186	-0.156	-0.107	—	—	—	—	—	
81	50.0	-0.181	-0.201	-0.201	-0.175	-0.145	-0.100	—	—	—	—	—	
82	59.0	-0.181	-0.201	-0.201	-0.175	-0.145	-0.100	—	—	—	—	—	
83	67.5	-0.110	-0.181	-0.181	-0.140	-0.105	-0.065	—	—	—	—	—	
84	76.5	-0.110	-0.180	-0.180	-0.140	-0.105	-0.065	—	—	—	—	—	
85	86.5	.000	.000	.000	.010	.010	.000	.000	—	—	—	—	

CONFIDENTIAL

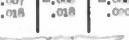


TABLE 29

 $[A = -45^\circ, \theta_{\alpha_0} = 0^\circ, \alpha = 7^\circ]$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.89	0.925	0.96		0.60	0.80	0.89	0.925	0.96	
1	2.0	---	---	---	---	---		3.0	---	---	---	---	
2	6.0	---	---	---	---	---		10.0	---	---	---	---	
3	15.0	---	---	---	---	---		25.0	---	---	---	---	
4	40.0	---	---	---	---	---		41.0	---	---	---	---	
5	60.0	---	---	---	---	---		52.5	---	---	---	---	
6	77.5	---	---	---	---	---		62.5	-0.025	-0.040	-0.101	-0.130	-0.159
7	59.0	-0.151	-0.193	-0.400	-0.448	-0.506		72.5	-0.006	-0.048	-0.121	-0.164	
8	87.5	-0.120	-0.203	-0.386	-0.416	-0.540		84.0	-0.027	-0.068	-0.121	-0.164	
9	77.5	---	---	---	---	---		94.0	---	---	---	---	
10	87.5	---	---	---	---	---							
11	96.0	---	---	---	---	---							
012	2.0	---	---	---	---	---							
13	8.0	---	---	---	---	---							
15	27.5	---	---	---	---	---							
16	40.0	-0.580	-0.644	-0.608	-0.672	-0.795							
17	50.0	-0.460	-0.508	-0.552	-0.600	-0.710							
18	59.0	-0.558	-0.616	-0.669	-0.711	-0.700							
19	48.5	-0.459	-0.507	-0.550	-0.602	-0.687							
20	77.5	-0.161	-0.169	-0.413	-0.482	-0.565							
21	86.0	-0.208	-0.230	-0.498	-0.520	-0.696							
22	95.8	---	---	---	---	---							
023	2.0	-0.800	-0.635	-0.798	-0.761	-0.800							
24	8.0	-0.810	-0.748	-0.812	-0.780	-0.810							
25	15.0	-0.798	-0.721	-0.790	-0.759	-0.798							
26	21.5	-0.708	-0.621	-0.740	-0.709	-0.760							
27	40.0	-0.648	-0.608	-0.691	-0.717	-0.750							
28	50.0	-0.649	-0.616	-0.691	-0.717	-0.731							
29	53.0	-0.381	-0.458	-0.578	-0.600	-0.647							
30	67.5	-0.260	-0.300	-0.410	-0.478	-0.524							
31	77.5	-0.105	-0.270	-0.310	-0.320	-0.365							
32	86.0	-0.110	-0.188	-0.205	-0.231	-0.256							
33	95.8	---	---	---	---	---							
024	2.0	-1.469	-1.298	-1.217	-1.172	-1.000							
35	15.0	-0.698	-0.541	-0.608	-0.648	-0.681							
36	47.5	-0.568	-0.560	-0.604	-0.628	-0.693							
37	40.0	-0.346	-0.446	-0.497	-0.510	-0.585							
38	50.0	-0.351	-0.467	-0.510	-0.540	-0.600							
39	59.0	-0.298	-0.331	-0.398	-0.411	-0.498							
40	67.5	-0.194	-0.248	-0.277	-0.297	-0.377							
41	77.5	-0.159	-0.191	-0.173	-0.133	-0.170							
42	87.5	-0.126	-0.146	-0.130	-0.100	-0.100							
43	94.2	-0.095	-0.113	-0.121	-0.101	-0.093							
F44	2.0	-1.461	-1.279	-1.215	-1.161	-1.010							
45	8.0	-0.379	-0.376	-0.370	-0.380	-0.380							
47	15.0	-0.392	-0.401	-0.419	-0.420	-0.428							
49	42.5	-0.478	-0.522	-0.596	-0.613	-0.696							
50	51.0	-0.399	-0.419	-0.465	-0.505	-0.571							
51	53.0	-0.299	-0.311	-0.348	-0.385	-0.474							
52	67.5	-0.205	-0.205	-0.227	-0.257	-0.300							
53	77.5	-0.130	-0.150	-0.150	-0.160	-0.200							
54	86.5	-0.081	-0.084	-0.081	-0.101	-0.140							
55	95.5	-0.058	-0.079	-0.061	-0.079	-0.106							
F56	2.0	---	---	---	---	---							
56	8.0	-1.278	-1.478	-1.333	-1.290	-1.299							
57	15.0	-0.798	-1.000	-1.119	-1.190	-1.212							
58	27.5	-0.505	-0.511	-0.521	-0.528	-0.577							
59	40.0	-0.340	-0.447	-0.447	-0.477	-0.513							
60	50.0	-0.330	-0.359	-0.372	-0.392	-0.450							
61	59.0	-0.260	-0.268	-0.293	-0.319	-0.389							
62	67.5	-0.200	-0.200	-0.200	-0.200	-0.254							
63	86.5	-0.100	-0.103	-0.110	-0.121	-0.130							
64	94.2	-0.075	-0.070	-0.078	-0.081	-0.110							
F65	2.0	-1.458	-1.308	-1.263	-1.260	-1.000							
66	8.0	-0.670	-1.080	-1.125	-1.260	-1.363							
67	15.0	-0.600	-0.800	-1.125	-1.264	-1.363							
68	20.5	-0.445	-0.480	-1.040	-1.079	-1.261							
69	40.0	-0.381	-0.413	-0.451	-0.480	-1.260							
70	50.0	-0.380	-0.413	-0.446	-0.471	-1.260							
71	59.0	-0.292	-0.346	-0.371	-0.400	-1.260							
72	87.5	-0.100	-0.199	-0.200	-0.200	-1.261							
73	77.5	-0.110	-0.118	-0.186	-0.201	-1.261							
74	87.2	-0.079	-0.079	-0.109	-0.120	-0.261							
75	96.8	-0.046	-0.030	-0.046	-0.046	-0.260							
F76	2.0	-1.456	-1.299	-1.170	-1.257	-1.266							
77	6.0	-0.670	-1.045	-1.021	-1.189	-1.269							
78	15.0	-0.570	-0.747	-0.630	-1.090	-1.260							
79	27.5	-0.371	-1.048	-1.050	-1.186	-1.261							
80	40.0	-0.380	-0.449	-0.451	-0.487	-1.261							
81	50.0	-0.290	-0.346	-0.371	-0.400	-1.261							
82	59.0	-0.230	-0.340	-0.377	-0.380	-1.261							
83	87.5	-0.120	-0.200	-0.215	-0.230	-1.261							
84	86.3	-0.111	-0.169	-0.185	-0.205	-0.260							
85	94.2	-0.098	-0.120	-0.130	-0.155	-0.264							

CONFIDENTIAL

NACA

TABLE 26

 $A = -45^\circ, \delta_{\text{ref}} = 0^\circ, \alpha = 10^\circ$

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE					LOWER SURFACE				
		Mach Number					Mach Number				
		0.60	0.80	0.89	0.925	0.96	0.60	0.80	0.89	0.925	0.96
A 1	2.0	--	--	--	--	--	--	--	--	--	--
6	6.0	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--
5	36.0	--	--	--	--	--	--	--	--	--	--
7	36.0	-0.190	-0.110	-0.052	-0.020	-0.013	--	--	--	--	--
8	37.5	-0.229	-0.160	-0.076	-0.035	-0.014	--	--	--	--	--
9	37.5	--	--	--	--	--	--	--	--	--	--
10	37.5	--	--	--	--	--	--	--	--	--	--
11	36.0	--	--	--	--	--	--	--	--	--	--
B12	2.0	--	--	--	--	--	--	--	--	--	--
15	6.0	--	--	--	--	--	--	--	--	--	--
14	15.0	--	--	--	--	--	--	--	--	--	--
15	27.5	-0.405	-0.183	-0.088	-0.030	-0.013	--	--	--	--	--
18	40.0	-0.500	-0.451	-0.300	-0.155	-0.060	--	--	--	--	--
17	50.0	-0.500	-0.512	-0.581	-0.645	-0.700	--	--	--	--	--
16	59.0	-0.472	-0.525	-0.575	-0.622	-0.712	--	--	--	--	--
19	67.5	-0.436	-0.480	-0.560	-0.616	-0.686	--	--	--	--	--
20	77.5	-0.388	-0.410	-0.487	-0.549	-0.626	--	--	--	--	--
21	88.0	-0.270	-0.300	-0.430	-0.442	-0.540	--	--	--	--	--
22	98.5	--	--	--	--	--	--	--	--	--	--
C25	2.0	-0.780	-0.580	-0.468	-0.375	-0.290	--	--	--	--	--
24	8.0	-0.500	-0.591	-0.708	-0.768	-0.812	--	--	--	--	--
25	15.0	-0.791	-0.591	-0.723	-0.782	-0.842	--	--	--	--	--
26	27.5	-0.780	-0.611	-0.710	-0.765	-0.835	--	--	--	--	--
27	40.0	-0.725	-0.658	-0.709	-0.756	-0.811	--	--	--	--	--
28	50.0	-0.750	-0.680	-0.740	-0.785	-0.845	--	--	--	--	--
29	59.0	-0.750	-0.680	-0.740	-0.785	-0.845	--	--	--	--	--
30	87.5	-0.500	-0.580	-0.660	-0.731	-0.802	--	--	--	--	--
31	77.5	-0.412	-0.508	-0.598	-0.678	-0.748	--	--	--	--	--
32	88.0	-0.172	-0.282	-0.388	-0.454	-0.512	--	--	--	--	--
33	95.5	--	--	--	--	--	--	--	--	--	--
D44	2.0	-1.149	-0.925	-1.131	-1.100	-1.208	--	--	--	--	--
55	15.0	-1.043	-1.071	-1.078	-1.081	-1.110	--	--	--	--	--
34	27.5	-1.043	-1.070	-1.078	-1.081	-1.084	--	--	--	--	--
37	40.0	-1.043	-1.070	-1.078	-1.081	-1.084	--	--	--	--	--
38	50.0	-1.043	-1.070	-1.078	-1.081	-1.084	--	--	--	--	--
59	58.0	-0.990	-1.031	-1.073	-1.044	-1.064	--	--	--	--	--
40	87.5	--	--	--	--	--	--	--	--	--	--
41	77.5	-0.172	-0.201	-0.490	-0.500	-0.480	--	--	--	--	--
42	87.5	-0.059	-0.250	-0.389	-0.333	-0.295	--	--	--	--	--
43	94.2	-0.058	-0.064	-0.115	-0.210	-0.269	--	--	--	--	--
F44	2.0	-1.160	-1.030	-1.148	-1.120	-1.210	--	--	--	--	--
45	6.0	-1.032	-1.039	-1.039	-1.041	-1.175	--	--	--	--	--
46	15.0	-1.200	-1.073	-1.360	-1.112	-1.210	--	--	--	--	--
47	27.5	-1.110	-1.070	-1.081	-1.045	-1.175	--	--	--	--	--
48	40.0	-0.750	-1.070	-0.890	-0.900	-1.175	--	--	--	--	--
49	50.0	-0.644	-1.019	-0.644	-0.640	-1.175	--	--	--	--	--
50	59.0	-0.745	-1.019	-0.745	-0.744	-1.175	--	--	--	--	--
51	87.5	-0.190	-0.200	-0.484	-0.449	-0.449	--	--	--	--	--
52	77.5	-0.149	-0.041	-0.280	-0.231	-0.231	--	--	--	--	--
53	88.0	-0.160	-0.050	-0.111	-0.210	-0.210	--	--	--	--	--
54	95.5	-0.060	-0.059	-0.118	-0.119	-0.119	--	--	--	--	--
F55	2.0	--	--	--	--	--	--	--	--	--	--
55	8.0	-1.240	-1.135	-1.137	-1.149	-1.210	--	--	--	--	--
57	15.0	-1.060	-1.060	-1.100	-1.105	-1.149	--	--	--	--	--
59	40.0	-1.034	-1.034	-1.100	-1.131	-1.149	--	--	--	--	--
60	50.0	-0.661	-0.610	-0.631	-0.631	-1.149	--	--	--	--	--
61	58.0	-0.260	-0.750	-0.610	-0.618	-1.149	--	--	--	--	--
62	67.5	-0.173	-0.200	-0.204	-0.208	-1.149	--	--	--	--	--
63	88.0	-0.050	-0.055	-0.160	-0.130	-1.149	--	--	--	--	--
64	94.5	-0.050	-0.058	-0.111	-0.105	-1.149	--	--	--	--	--
H65	2.0	-1.206	-1.105	-1.194	-1.179	-1.210	--	--	--	--	--
66	6.0	-1.021	-1.021	-1.057	-1.060	-1.141	--	--	--	--	--
67	15.0	-1.161	-1.161	-1.169	-1.160	-1.141	--	--	--	--	--
68	27.5	-1.210	-1.160	-1.161	-1.161	-1.141	--	--	--	--	--
69	40.0	-1.200	-1.182	-1.210	-1.160	-1.141	--	--	--	--	--
70	50.0	-0.205	-0.382	-0.440	-0.610	-1.141	--	--	--	--	--
71	59.0	-0.265	-0.262	-0.330	-0.345	-1.141	--	--	--	--	--
72	87.5	-0.200	-0.200	-0.310	-0.271	-1.141	--	--	--	--	--
73	77.5	-0.115	-0.160	-0.170	-0.140	-1.141	--	--	--	--	--
74	87.5	-0.090	-0.115	-0.120	-0.119	-1.141	--	--	--	--	--
75	98.0	-0.064	-0.070	-0.102	-0.070	-1.141	--	--	--	--	--
H76	2.0	-1.180	--	-1.180	--	-1.180	--	--	--	--	--
77	8.0	-1.180	-1.180	-1.100	-1.072	-1.180	--	--	--	--	--
78	15.0	-0.625	-0.892	-1.130	-0.759	-1.180	--	--	--	--	--
79	27.5	-0.931	-0.979	-1.005	-1.029	-1.180	--	--	--	--	--
80	40.0	-0.811	-0.570	-0.595	-0.497	-1.180	--	--	--	--	--
81	50.0	-0.799	-0.799	-0.849	-0.849	-1.180	--	--	--	--	--
82	59.0	-0.799	-0.799	-0.849	-0.849	-1.180	--	--	--	--	--
83	87.5	-0.175	-0.118	-0.130	-0.118	-1.180	--	--	--	--	--
84	88.0	-0.065	-0.290	-0.361	-0.358	-1.180	--	--	--	--	--
85	94.5	-0.179	-0.210	-0.255	-0.255	-1.180	--	--	--	--	--

CONFIDENTIAL

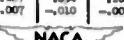


TABLE 27

 $[A = 30^\circ, \theta_{\infty} = -10.0^\circ, \alpha = -5^\circ]$

Tube	For- ward chord	UPPER SURFACE					CONFIDENTIAL LOWER SURFACE				
		Mach Number					Mach Number				
		0.60	0.80	0.85	0.89		0.60	0.80	0.85	0.89	
A 1	2.0	.266	.370	.376	.390						
2	6.0	.134	.127	.166	.181						
3	15.0	-.020	.007	.007	.030						
4	27.6	-.099	-.089	-.079	-.065						
5	40.0	--	--	--	--						
6	50.0	--	--	--	--						
7	60.0	--	--	--	--						
8	67.5	--	--	--	--						
9	77.5	--	--	--	--						
10	87.5	--	--	--	--						
11	96.0	--	--	--	--						
612	2.0	.360	.360	.360	.372						
15	6.0	.103	.103	.103	.103						
14	12.0	-.045	-.045	-.045	-.035						
15	27.5	-.166	-.183	-.176	-.166						
16	40.0	-.139	-.130	-.130	-.124						
17	50.0	-.095	-.100	-.100	-.100						
18	60.0	-.038	-.038	-.038	-.038						
19	67.5	-.038	-.038	-.038	-.038						
20	77.5	-.129	-.120	-.120	-.120						
21	86.0	-.047	-.076	-.094	-.120						
22	95.5	--	--	--	--						
623	2.0	.360	.360	.360	.360						
24	6.0	.098	.098	.104	.115						
25	15.0	-.062	-.061	-.060	-.077						
26	27.6	-.186	-.196	-.196	-.203						
27	40.0	-.166	-.171	-.166	-.170						
28	50.0	-.106	-.111	-.111	-.114						
29	58.0	-.086	-.094	-.094	-.102						
30	67.5	-.086	-.094	-.094	-.102						
31	77.5	-.083	-.103	-.111	-.139						
32	86.0	-.093	-.097	-.079	-.061						
33	95.5	.110	.115	.111	.123						
634	2.0	.277	.315	.314	.312						
35	15.0	-.089	-.104	-.109	-.105						
36	24.0	-.189	-.246	-.246	-.246						
37	40.0	-.196	-.196	-.196	-.195						
38	60.0	-.104	-.104	-.104	-.111						
39	68.0	-.096	-.104	-.104	-.104						
40	87.5	-.179	-.204	-.204	-.200						
41	77.5	-.130	-.130	-.130	-.130						
42	87.5	-.041	-.043	-.043	-.068						
43	94.2	.103	.120	.120	.121						
644	2.0	.393	.397	.395	.395						
45	6.0	.127	.111	.109	.099						
46	15.0	-.045	-.083	-.100	-.117						
47	27.6	-.145	-.207	-.207	-.224						
48	40.0	-.210	-.234	-.239	-.235						
49	50.0	-.200	-.203	-.203	-.205						
50	59.0	-.167	-.181	-.181	-.193						
51	67.5	-.125	-.177	-.177	-.166						
52	77.5	-.041	-.048	-.048	-.050						
53	86.0	.112	.126	.126	.133						
54	95.5	.152	.175	.183	.194						
655	2.0	.393	.376	.376	.395						
66	6.0	.149	.127	.116	.094						
57	15.0	-.086	-.069	-.070	-.119						
68	27.5	-.119	-.168	-.168	-.168						
69	40.0	-.176	-.204	-.204	-.168						
70	50.0	-.148	-.148	-.148	-.139						
71	59.0	-.109	-.162	-.162	-.159						
72	67.5	-.017	-.009	-.016	-.047						
73	77.5	-.029	.023	.023	.027						
74	87.5	-.029	.029	.029	.029						
75	96.0	.129	.135	.135	.161						
666	2.0	.446	.404	.402	.376						
67	6.0	.186	.165	.144	.119						
68	15.0	-.037	-.016	-.024	-.079						
69	27.5	-.178	-.123	-.154	-.154						
70	40.0	-.130	-.128	-.128	-.203						
71	50.0	-.118	-.118	-.118	-.200						
72	59.0	-.061	-.099	-.099	-.162						
73	67.5	.008	.041	.041	.000						
74	77.5	-.029	.023	.023	.027						
75	87.5	-.029	.023	.023	.027						
76	96.0	.129	.124	.124	.163						

CONFIDENTIAL



CONFIDENTIAL

TABLE 20

$$[\alpha = 30^\circ, \delta_{\text{sp}} = -10.0^\circ, \sigma = 2^\circ]$$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE					
		cent	chord	Mach Number					Mach Number				
				0.60	0.80	0.85	0.89	0.925	0.95	0.60	0.80	0.85	0.89
A 1	2.0	-0.270	-0.180	-0.135	-0.082	-0.030	0.025						
2	6.0	-0.290	-0.205	-0.185	-0.175	-0.130	-0.073						
3	15.0	-0.261	-0.275	-0.250	-0.233	-0.171	-0.112						
4	27.5	-0.290	-0.305	-0.285	-0.253	-0.212	-0.159						
5	40.0	-	-	-	-	-	-						
6	50.0	-	-	-	-	-	-						
7	59.0	-	-	-	-	-	-						
8	67.5	-	-	-	-	-	-						
9	77.5	-	-	-	-	-	-						
10	87.5	-	-	-	-	-	-						
11	96.0	-	-	-	-	-	-						
A12	2.0	-	-0.267	-0.184	-0.136	-0.085	-0.035	-0.005					
13	6.0	-	-0.245	-0.186	-0.145	-0.105	-0.061	-0.021					
14	15.0	-	-0.250	-0.211	-0.191	-0.148	-0.108	-0.071					
15	27.5	-	-0.276	-0.242	-0.212	-0.177	-0.135	-0.095					
16	40.0	-	-0.300	-0.290	-0.263	-0.220	-0.176	-0.130					
17	50.0	-	-0.306	-0.295	-0.261	-0.218	-0.170	-0.124					
18	59.0	-	-0.347	-0.303	-0.269	-0.220	-0.170	-0.124					
19	67.5	-	-0.365	-0.303	-0.269	-0.220	-0.170	-0.124					
20	77.5	-	-0.377	-0.304	-0.265	-0.216	-0.166	-0.121					
21	86.0	-	-0.371	-0.099	-0.270	-0.205	-0.165	-0.120					
22	95.5	-	-	-	-	-	-	-					
C23	2.0	-	-0.275	-0.190	-0.132	-0.085	-0.035	-0.005					
24	6.0	-	-0.281	-0.176	-0.130	-0.073	-0.027	-0.011					
25	15.0	-	-0.393	-0.417	-0.312	-0.265	-0.211	-0.150					
26	27.5	-	-0.310	-0.306	-0.247	-0.203	-0.167	-0.115					
27	40.0	-	-0.333	-0.313	-0.263	-0.220	-0.176	-0.124					
28	50.0	-	-0.336	-0.308	-0.268	-0.220	-0.176	-0.124					
29	59.0	-	-0.346	-0.308	-0.268	-0.220	-0.176	-0.124					
30	67.5	-	-0.356	-0.308	-0.268	-0.220	-0.176	-0.124					
31	77.5	-	-0.320	-0.180	-0.283	-0.238	-0.188	-0.124					
32	86.0	-	-0.002	-0.005	-0.070	-0.145	-0.117	-0.065					
33	95.5	-	-0.006	-0.103	-0.106	-0.205	-0.165	-0.111					
D34	2.0	-	-0.269	-0.182	-0.135	-0.085	-0.035	-0.005					
35	6.0	-	-0.243	-0.184	-0.145	-0.105	-0.061	-0.021					
36	15.0	-	-0.247	-0.204	-0.165	-0.124	-0.077	-0.035					
37	27.5	-	-0.371	-0.264	-0.211	-0.170	-0.135	-0.095					
38	40.0	-	-0.371	-0.264	-0.211	-0.170	-0.135	-0.095					
39	50.0	-	-0.381	-0.264	-0.211	-0.170	-0.135	-0.095					
40	67.5	-	-0.306	-0.310	-0.237	-0.191	-0.151	-0.111					
41	77.5	-	-0.103	-0.150	-0.157	-0.187	-0.140	-0.103					
42	87.5	-	-0.011	-0.028	-0.087	-0.184	-0.134	-0.091					
43	94.5	-	-0.011	-0.021	-0.074	-0.160	-0.122	-0.078					
E44	2.0	-	-0.265	-0.180	-0.135	-0.085	-0.035	-0.005					
45	6.0	-	-0.260	-0.176	-0.141	-0.103	-0.061	-0.021					
46	15.0	-	-0.279	-0.211	-0.163	-0.125	-0.085	-0.045					
47	27.5	-	-0.370	-0.260	-0.209	-0.166	-0.125	-0.085					
48	40.0	-	-0.384	-0.261	-0.209	-0.166	-0.125	-0.085					
49	50.0	-	-0.381	-0.261	-0.209	-0.166	-0.125	-0.085					
50	59.0	-	-0.379	-0.267	-0.208	-0.166	-0.125	-0.085					
51	67.5	-	-0.387	-0.268	-0.208	-0.166	-0.125	-0.085					
52	77.5	-	-0.385	-0.268	-0.208	-0.166	-0.125	-0.085					
53	86.0	-	-0.385	-0.268	-0.208	-0.166	-0.125	-0.085					
54	95.5	-	-0.385	-0.268	-0.208	-0.166	-0.125	-0.085					
F55	2.0	-	-0.276	-0.185	-0.136	-0.085	-0.035	-0.005					
56	6.0	-	-0.276	-0.176	-0.136	-0.085	-0.035	-0.005					
57	15.0	-	-0.364	-0.215	-0.170	-0.139	-0.090	-0.050					
58	27.5	-	-0.356	-0.217	-0.172	-0.140	-0.100	-0.060					
59	40.0	-	-0.362	-0.215	-0.170	-0.139	-0.090	-0.050					
60	50.0	-	-0.362	-0.215	-0.170	-0.139	-0.090	-0.050					
61	59.0	-	-0.367	-0.216	-0.171	-0.141	-0.101	-0.061					
62	67.5	-	-0.030	-0.022	-0.065	-0.105	-0.060	-0.031					
63	66.5	-	-	-	-	-	-	-					
64	94.5	-	-	-	-	-	-	-					
G65	2.0	-	-0.267	-0.177	-0.136	-0.085	-0.035	-0.005					
66	6.0	-	-0.216	-0.141	-0.106	-0.061	-0.021	-0.011					
67	15.0	-	-0.307	-0.241	-0.196	-0.151	-0.106	-0.066					
68	27.5	-	-0.309	-0.245	-0.198	-0.153	-0.108	-0.068					
69	40.0	-	-0.309	-0.245	-0.198	-0.153	-0.108	-0.068					
70	50.0	-	-0.305	-0.247	-0.197	-0.152	-0.107	-0.067					
71	59.0	-	-0.313	-0.251	-0.203	-0.156	-0.113	-0.069					
72	67.5	-	-0.005	-0.018	-0.039	-0.099	-0.060	-0.031					
73	77.5	-	-0.005	-0.026	-0.026	-0.148	-0.107	-0.060					
74	87.5	-	-	-	-	-	-	-					
75	96.0	-	-0.156	-0.101	-0.200	-0.115	-0.171	-0.121					
H76	2.0	-	-0.217	-0.139	-0.160	-0.105	-0.060	-0.031					
77	6.0	-	-0.303	-0.219	-0.166	-0.126	-0.087	-0.057					
78	15.0	-	-0.306	-0.211	-0.157	-0.124	-0.084	-0.054					
79	27.5	-	-0.304	-0.211	-0.157	-0.124	-0.084	-0.054					
80	40.0	-	-0.287	-0.198	-0.143	-0.110	-0.073	-0.043					
81	50.0	-	-0.286	-0.198	-0.143	-0.110	-0.073	-0.043					
82	59.0	-	-0.286	-0.198	-0.143	-0.110	-0.073	-0.043					
83	68.5	-	-0.286	-0.198	-0.143	-0.110	-0.073	-0.043					
84	88.5	-	-0.171	-0.109	-0.200	-0.094	-0.160	-0.120					
85	94.8	-	-0.143	-0.168	-0.180	-0.104	-0.137	-0.107					

CONFIDENTIAL



TABLE 30

 $\alpha = 30^\circ, b_{\text{ch}} = -10.0^\circ, \alpha = 4^\circ$

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE						LOWER SURFACE						
		0.60	0.80	0.85	0.89	0.93	0.95	0.60	0.80	0.85	0.89	0.93	0.95	
A 1	2.0	-0.690	-0.611	-0.544	-0.489	-0.394	-0.294	2.0	0.367	0.378	0.380	0.377	0.382	0.381
2	6.0	-0.543	-0.367	-0.483	-0.420	-0.365	-0.297	6.0	--	--	--	--	--	--
3	15.0	-0.473	-0.398	-0.411	-0.399	-0.311	-0.231	15.0	0.40	0.390	0.395	0.372	0.389	0.391
4	27.5	-0.398	-0.327	-0.402	-0.357	-0.308	-0.260	27.5	--	--	--	--	--	--
5	50.0	--	--	--	--	--	--	50.0	--	--	--	--	--	--
6	59.0	--	--	--	--	--	--	59.0	--	--	--	--	--	--
7	59.0	--	--	--	--	--	--	59.0	--	--	--	--	--	--
8	67.5	--	--	--	--	--	--	67.5	--	--	--	--	--	--
9	77.5	--	--	--	--	--	--	77.5	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	87.5	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	96.0	--	--	--	--	--	--
B12	2.0	-0.800	-0.740	-0.684	-0.628	-0.567	-0.401	2.0	0.320	0.340	0.360	0.380	0.396	0.400
13	8.0	-0.620	-0.495	-0.597	-0.526	-0.457	-0.355	8.0	0.150	0.151	0.200	0.186	0.174	0.171
14	15.0	-0.500	-0.405	-0.503	-0.476	-0.407	-0.305	15.0	0.064	0.080	0.094	0.113	0.096	0.115
15	27.5	-0.403	-0.363	-0.448	-0.403	-0.361	-0.261	27.5	0.077	0.087	0.102	0.126	0.111	0.107
16	40.0	-0.376	-0.361	-0.416	-0.386	-0.318	-0.238	40.0	0.078	0.087	0.108	0.127	0.109	0.106
17	50.0	-0.343	-0.366	-0.368	-0.356	-0.306	-0.208	50.0	0.073	0.075	0.086	0.112	0.183	0.201
18	59.0	-0.308	-0.317	-0.733	-0.698	-0.628	-0.404	59.0	0.074	0.080	0.099	0.107	0.160	0.160
19	77.5	-0.265	-0.300	-0.666	-0.625	-0.563	-0.390	77.5	0.074	0.077	0.086	0.107	0.160	0.160
20	79.0	-0.297	-0.306	-0.656	-0.607	-0.550	-0.390	79.0	0.074	0.077	0.086	0.107	0.160	0.160
21	88.0	-0.090	-0.120	-0.217	-0.186	-0.153	-0.096	88.0	0.074	0.077	0.086	0.107	0.160	0.160
22	95.0	--	--	--	--	--	--	95.0	--	--	--	--	--	--
C23	2.0	-0.800	-0.811	-0.766	-0.793	-0.735	-0.511	2.0	0.320	0.340	0.360	0.380	0.396	0.400
24	8.0	-0.715	-0.656	-0.620	-0.596	-0.537	-0.355	8.0	0.150	0.151	0.200	0.186	0.174	0.171
25	15.0	-0.590	-0.505	-0.596	-0.546	-0.486	-0.355	15.0	0.064	0.080	0.094	0.113	0.096	0.115
26	27.5	-0.511	-0.576	-0.653	-0.626	-0.567	-0.355	27.5	0.077	0.087	0.102	0.126	0.111	0.107
27	40.0	-0.480	-0.577	-0.735	-0.676	-0.615	-0.355	40.0	0.078	0.087	0.108	0.127	0.109	0.106
28	50.0	-0.466	-0.700	-0.761	-0.700	-0.620	-0.355	50.0	0.073	0.075	0.086	0.112	0.183	0.201
29	59.0	-0.398	-0.706	-0.767	-0.717	-0.651	-0.355	59.0	0.074	0.077	0.086	0.107	0.160	0.160
30	87.5	--	--	--	--	--	--	87.5	--	--	--	--	--	--
31	77.5	-0.153	-0.149	-0.366	-0.696	-0.626	-0.355	77.5	0.074	0.077	0.086	0.107	0.160	0.160
32	88.0	-0.083	-0.084	-0.097	-0.293	-0.258	-0.355	88.0	0.074	0.077	0.086	0.107	0.160	0.160
33	95.0	.064	.087	.098	.109	.124	.274	95.0	--	--	--	--	--	--
D34	2.0	-1.012	-1.027	-0.794	-0.795	-0.470	-0.313	2.0	0.303	0.306	0.353	0.335	0.327	0.326
35	10.0	-0.582	-0.789	-0.687	-0.601	-0.529	-0.413	10.0	0.161	0.164	0.144	0.130	0.129	0.142
36	27.5	-0.508	-0.786	-0.782	-0.694	-0.617	-0.522	27.5	0.061	0.064	0.086	0.093	0.093	0.096
37	40.0	-0.518	-0.714	-0.800	-0.706	-0.697	-0.603	40.0	0.077	0.079	0.111	0.105	0.200	0.181
38	50.0	-0.496	-0.767	-0.767	-0.708	-0.673	-0.680	50.0	0.066	0.068	0.110	0.109	0.205	0.180
39	59.0	-0.393	-0.703	-0.671	-0.666	-0.697	-0.601	59.0	0.074	0.077	0.086	0.107	0.160	0.160
40	87.5	-0.257	-0.216	-0.313	-0.403	-0.314	-0.676	87.5	0.074	0.077	0.086	0.107	0.160	0.160
41	77.5	-0.196	-0.199	-0.313	-0.403	-0.314	-0.676	77.5	0.074	0.077	0.086	0.107	0.160	0.160
42	87.5	-0.065	-0.066	-0.199	-0.301	-0.314	-0.676	87.5	0.074	0.077	0.086	0.107	0.160	0.160
43	94.0	-0.066	-0.148	-0.047	-0.109	-0.119	-0.608	94.0	0.074	0.077	0.086	0.107	0.160	0.160
E44	2.0	-1.007	-1.028	-0.797	-0.695	-0.465	-0.345	2.0	0.303	0.306	0.379	0.335	0.327	0.326
45	8.0	-0.703	-1.025	-0.875	-0.733	-0.616	-0.403	8.0	0.150	0.151	0.196	0.130	0.129	0.142
46	15.0	-0.555	-0.822	-0.782	-0.694	-0.597	-0.355	15.0	0.067	0.072	0.072	0.086	0.093	0.096
47	27.5	-0.506	-0.796	-0.779	-0.714	-0.642	-0.355	27.5	0.077	0.079	0.138	0.139	0.257	0.185
48	40.0	-0.465	-0.742	-0.769	-0.739	-0.699	-0.355	40.0	0.080	0.082	0.128	0.127	0.255	0.180
49	50.0	-0.401	-0.447	-0.447	-0.447	-0.447	-0.355	50.0	0.073	0.075	0.119	0.119	0.245	0.180
50	59.0	-0.374	-0.487	-0.487	-0.487	-0.487	-0.355	59.0	0.074	0.077	0.124	0.124	0.251	0.187
51	67.5	-0.246	-0.319	-0.319	-0.319	-0.319	-0.355	67.5	0.074	0.077	0.098	0.129	0.168	0.163
52	77.5	-0.097	-0.096	-0.129	-0.129	-0.129	-0.355	77.5	0.074	0.077	0.086	0.107	0.160	0.160
53	86.5	-0.093	-0.148	-0.148	-0.093	-0.148	-0.355	86.5	0.074	0.077	0.086	0.107	0.160	0.160
54	95.0	.113	.148	.105	.105	.148	.312	95.0	--	--	--	--	--	--
F55	2.0	-0.987	-1.028	-0.797	-0.695	-0.465	-0.345	2.0	0.304	0.307	0.379	0.335	0.327	0.326
55	8.0	-0.706	-1.025	-0.875	-0.733	-0.616	-0.403	8.0	0.150	0.151	0.196	0.130	0.129	0.142
56	15.0	-0.557	-0.823	-0.783	-0.695	-0.598	-0.355	15.0	0.067	0.072	0.072	0.086	0.093	0.096
57	27.5	-0.508	-0.797	-0.779	-0.714	-0.642	-0.355	27.5	0.077	0.079	0.138	0.139	0.257	0.185
58	40.0	-0.466	-0.743	-0.769	-0.739	-0.699	-0.355	40.0	0.080	0.082	0.128	0.127	0.255	0.180
59	50.0	-0.403	-0.448	-0.448	-0.448	-0.448	-0.355	50.0	0.073	0.075	0.119	0.119	0.245	0.180
60	59.0	-0.375	-0.487	-0.487	-0.487	-0.487	-0.355	59.0	0.074	0.077	0.124	0.124	0.251	0.187
61	67.5	-0.228	-0.320	-0.320	-0.320	-0.320	-0.355	67.5	0.074	0.077	0.086	0.107	0.160	0.160
62	77.5	-0.080	-0.080	-0.125	-0.125	-0.125	-0.355	77.5	0.074	0.077	0.086	0.107	0.160	0.160
63	86.5	-0.080	-0.148	-0.148	-0.080	-0.148	-0.355	86.5	0.074	0.077	0.086	0.107	0.160	0.160
64	94.0	-0.080	-0.148	-0.148	-0.080	-0.148	-0.355	94.0	0.074	0.077	0.086	0.107	0.160	0.160
G65	2.0	-0.985	-1.028	-0.795	-0.693	-0.463	-0.345	2.0	0.303	0.306	0.377	0.335	0.327	0.326
65	8.0	-0.705	-1.027	-0.875	-0.733	-0.616	-0.403	8.0	0.150	0.151	0.196	0.130	0.129	0.142
66	15.0	-0.558	-0.824	-0.784	-0.696	-0.599	-0.355	15.0	0.067	0.072	0.072	0.086	0.093	0.096
67	27.5	-0.509	-0.796	-0.779	-0.714	-0.642	-0.355	27.5	0.077	0.079	0.138	0.139	0.257	0.185
68	40.0	-0.468	-0.742	-0.769	-0.739	-0.699	-0.355	40.0	0.080	0.082	0.128	0.127	0.255	0.180
69	50.0	-0.405	-0.449	-0.449	-0.449	-0.449	-0.355	50.0	0.073	0.075	0.119	0.119	0.245	0.180
70	59.0	-0.377	-0.487	-0.487	-0.487	-0.487	-0.355	59.0	0.074	0.077	0.124	0.124	0.251	0.187
71	67.5	-0.230	-0.322	-0.322	-0.322	-0.322	-0.355	67.5	0.074	0.077	0.086	0.107	0.160	0.160
72	77.5	-0.083	-0.083	-0.128	-0.128	-0.128	-0.355	77.5	0.074	0.077	0.086	0.107	0.160	0.160
73	77.5	-0.147	-0.167	-0.117	-0.128	-0.128	-0.355	77.5	0.074	0.077	0.086	0.107	0.160</td	

TABLE 31

 $\Delta = 30^\circ, \theta_{\infty} = -10.0^\circ, a = T^2$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE									
		cent	chord	Mach Number					Mach Number								
				0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89				
A 1	2.0	-1.890	-1.354	-1.120	-0.957	-0.812	-0.677			56	3.0	0.585	0.581	0.578	0.572	0.575	0.568
2	6.0	-0.880	-1.205	-0.97	-0.868	-0.765	-0.626			57	10.3	-	-	-	-	-	-
3	15.0	-0.646	-0.681	-0.626	-0.569	-0.501	-0.411			58	25.0	.167	.176	.171	.175	.183	.205
4	27.5	-0.534	-0.615	-0.563	-0.512	-0.452	-0.375			59	41.0	-	-	-	-	-	-
5	50.0	-	-	-	-	-	-			60	56.5	-	-	-	-	-	-
6	55.0	-	-	-	-	-	-			61	58.5	-	-	-	-	-	-
7	56.0	-	-	-	-	-	-			62	72.8	-	-	-	-	-	-
8	57.5	-	-	-	-	-	-			63	64.0	-	-	-	-	-	-
9	57.5	-	-	-	-	-	-			64	64.0	-	-	-	-	-	-
10	57.8	-	-	-	-	-	-			65	3.0	-	-	-	-	-	-
11	96.0	-	-	-	-	-	-			66	10.3	-	-	-	-	-	-
B12	2.0	-1.091	-1.418	-1.164	-0.993	-0.816	-0.688			67	10.3	-	-	-	-	-	-
15	6.0	-1.059	-1.267	-1.123	-0.991	-0.861	-0.729			68	25.0	-	-	-	-	-	-
14	15.0	-0.737	-0.866	-1.065	-0.879	-0.736	-0.601			69	41.0	-	-	-	-	-	-
15	27.5	-0.620	-0.765	-0.699	-0.653	-0.595	-0.508			70	56.5	-	-	-	-	-	-
16	40.0	-0.581	-0.708	-0.768	-0.697	-0.625	-0.520			71	64.0	-	-	-	-	-	-
17	50.0	-0.517	-0.656	-0.810	-0.764	-0.672	-0.581			72	72.8	-	-	-	-	-	-
18	52.0	-0.474	-0.815	-0.845	-0.783	-0.714	-0.628			73	64.0	-	-	-	-	-	-
19	57.5	-0.339	-0.586	-0.810	-0.773	-0.707	-0.628			74	64.0	-	-	-	-	-	-
20	57.5	-0.238	-0.500	-0.598	-0.763	-0.699	-0.618			75	3.0	-	-	-	-	-	-
21	80.0	-0.111	-0.190	-0.345	-0.515	-0.639	-0.573			76	10.3	-	-	-	-	-	-
22	85.3	-	-	-	-	-	-			77	25.0	-	-	-	-	-	-
C23	2.0	-0.065	-1.433	-1.166	-0.996	-0.814	-0.653			78	41.0	-	-	-	-	-	-
24	6.0	1.260	-1.304	-1.172	-1.018	-0.874	-0.740			79	56.5	-	-	-	-	-	-
25	15.0	-0.801	-1.231	-1.076	-0.943	-0.847	-0.705			80	64.0	-	-	-	-	-	-
26	27.5	-0.670	-0.807	-1.007	-0.865	-0.776	-0.621			81	72.8	-	-	-	-	-	-
27	40.0	-0.531	-0.677	-0.874	-0.805	-0.724	-0.621			82	64.0	-	-	-	-	-	-
28	50.0	-0.511	-0.658	-0.806	-0.748	-0.673	-0.570			83	72.8	-	-	-	-	-	-
29	50.0	-0.470	-0.618	-0.744	-0.694	-0.640	-0.561			84	64.0	-	-	-	-	-	-
30	57.5	-0.375	-0.517	-0.747	-0.691	-0.628	-0.539			85	72.8	-	-	-	-	-	-
31	77.8	-0.167	-0.187	-0.365	-0.540	-0.642	-0.570			86	64.0	-	-	-	-	-	-
32	88.0	-0.060	-0.071	-0.271	-0.351	-0.442	-0.418			87	3.0	-	-	-	-	-	-
33	95.3	-0.001	-0.011	-0.131	-0.218	-0.308	-0.387			88	10.3	-	-	-	-	-	-
D24	2.0	-1.016	-1.478	-1.109	-1.016	-0.854	-0.765			89	25.0	-	-	-	-	-	-
34	6.0	-0.798	-1.129	-1.049	-1.006	-0.909	-0.781			90	41.0	-	-	-	-	-	-
35	27.5	-0.643	-0.848	-1.110	-1.010	-0.914	-0.715			91	56.5	-	-	-	-	-	-
36	40.0	-0.596	-0.721	-1.026	-0.944	-0.816	-0.708			92	64.0	-	-	-	-	-	-
38	50.0	-0.488	-0.669	-1.030	-0.945	-0.819	-0.708			93	72.8	-	-	-	-	-	-
39	59.0	-0.366	-0.569	-0.911	-0.797	-0.696	-0.607			94	64.0	-	-	-	-	-	-
40	57.5	-0.366	-0.517	-1.031	-0.947	-0.816	-0.707			95	72.8	-	-	-	-	-	-
41	77.8	-0.137	-0.089	-0.286	-0.470	-0.561	-0.611			96	64.0	-	-	-	-	-	-
42	87.5	-0.077	-0.090	-0.266	-0.409	-0.500	-0.561			97	3.0	-	-	-	-	-	-
43	94.2	-0.006	-0.016	-0.165	-0.300	-0.395	-0.459			98	10.3	-	-	-	-	-	-
F44	2.0	-1.739	-1.520	-1.238	-1.032	-0.878	-0.703			99	25.0	-	-	-	-	-	-
45	6.0	-1.811	-1.444	-1.212	-1.047	-0.907	-0.761			100	41.0	-	-	-	-	-	-
46	15.0	-0.909	-1.333	-1.140	-1.004	-0.866	-0.776			101	56.5	-	-	-	-	-	-
47	27.5	-0.628	-1.261	-1.026	-0.932	-0.805	-0.700			102	64.0	-	-	-	-	-	-
48	40.0	-0.530	-0.866	-0.791	-0.811	-0.704	-0.674			103	72.8	-	-	-	-	-	-
49	50.0	-0.486	-0.596	-0.601	-0.602	-0.513	-0.512			104	64.0	-	-	-	-	-	-
50	52.0	-0.422	-0.512	-0.530	-0.548	-0.468	-0.465			105	72.8	-	-	-	-	-	-
51	67.1	-0.216	-0.265	-0.346	-0.448	-0.520	-0.561			106	64.0	-	-	-	-	-	-
52	77.5	-0.061	-0.064	-0.166	-0.249	-0.320	-0.361			107	72.8	-	-	-	-	-	-
53	88.5	-0.016	-0.021	-0.172	-0.268	-0.323	-0.379			108	64.0	-	-	-	-	-	-
54	95.5	-0.009	-0.003	-0.172	-0.242	-0.324	-0.379			109	3.0	-	-	-	-	-	-
F55	2.0	-1.762	-1.513	-1.285	-1.030	-0.864	-0.692			110	10.3	-	-	-	-	-	-
55	6.0	-1.860	-1.446	-1.214	-1.050	-0.907	-0.761			111	25.0	-	-	-	-	-	-
57	15.0	-0.779	-1.245	-1.045	-0.905	-0.805	-0.717			112	41.0	-	-	-	-	-	-
58	27.5	-0.620	-0.948	-0.905	-0.927	-0.806	-0.705			113	56.5	-	-	-	-	-	-
59	40.0	-0.530	-0.679	-0.610	-0.626	-0.501	-0.501			114	64.0	-	-	-	-	-	-
60	50.0	-0.486	-0.596	-0.531	-0.548	-0.401	-0.401			115	72.8	-	-	-	-	-	-
61	54.0	-0.377	-0.595	-0.507	-0.549	-0.310	-0.310			116	64.0	-	-	-	-	-	-
62	67.5	-0.108	-0.188	-0.211	-0.291	-0.160	-0.161			117	72.8	-	-	-	-	-	-
63	86.8	-0.004	-0.016	-0.104	-0.180	-0.061	-0.061			118	64.0	-	-	-	-	-	-
64	94.6	-	-	-	-	-	-			119	3.0	-	-	-	-	-	-
F65	2.0	-1.690	-1.360	-1.284	-1.039	-0.860	-0.694			120	10.3	-	-	-	-	-	-
55	6.0	-1.477	-1.481	-1.214	-1.050	-0.907	-0.764			121	25.0	-	-	-	-	-	-
67	15.0	-0.787	-1.095	-1.062	-0.978	-0.843	-0.774			122	41.0	-	-	-	-	-	-
68	27.5	-0.619	-0.717	-0.705	-0.808	-0.702	-0.693			123	56.5	-	-	-	-	-	-
69	40.0	-0.534	-0.532	-0.647	-0.790	-0.689	-0.690			124	64.0	-	-	-	-	-	-
70	50.0	-0.477	-0.596	-0.585	-0.626	-0.568	-0.567			125	72.8	-	-	-	-	-	-
71	52.0	-0.150	-0.204	-0.307	-0.549	-0.310	-0.505			126	64.0	-	-	-	-	-	-
72	67.5	-0.066	-0.111	-0.211	-0.348	-0.169	-0.316			127	72.8	-	-	-	-	-	-
73	79.0	-0.004	-0.040	-0.110	-0.201	-0.062	-0.167			128	64.0	-	-	-	-	-	-
74	87.2	-	-	-	-	-	-			129	3.0	-	-	-	-	-	-
75	96.8	-0.137	-0.039	-0.065	-0.099	-0.232	-0.168			130	10.3	-	-	-	-	-	-
F75	2.0	-0.661	-0.929	-0.899	-0.820	-0.826	-0.665			131	25.0	-	-	-	-	-	-
77	6.0	-1.009	-0.897	-0.900	-0.810	-0.781	-0.751			132	41.0	-	-	-	-	-	-
79	15.0	-0.599	-0.697	-0.691	-0.621	-0.754	-0.605			133	56.5	-	-	-	-	-	-
79	27.5	-0.477	-0.546	-0.541	-0.501	-0.627	-0										

TABLE 32

 $[A = 30^\circ, b_{\alpha_0} = -5.1^\circ, \alpha = -d^\circ]$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE					LOWER SURFACE				
		Mach Number					Mach Number				
		0.60	0.80	0.85	0.89		0.60	0.80	0.85	0.89	
3	2.0	.367	.368	.376	.389						
6	6.0	.111	.146	.165	.180						
9	15.0	-.006	.001	.013	.024						
12	22.0	-.103	-.098	-.103	-.096						
15	30.0	-.001									
18	38.0	---	---	---	---						
21	46.0	---	---	---	---						
24	54.0	---	---	---	---						
27	62.0	---	---	---	---						
30	70.0	---	---	---	---						
33	77.5	---	---	---	---						
36	85.0	---	---	---	---						
39	92.0	---	---	---	---						
42	98.0	---	---	---	---						
45	99.5	---	---	---	---						
52	6.0	.168	.204	.205	.207						
35	8.0	.081	.114	.125	.140						
34	15.0	-.072	-.097	-.091	-.095						
15	27.5	-.176	-.188	-.184	-.167						
36	40.0	-.087	-.098	-.108	-.100						
17	50.0	-.261	-.300	-.34	-.373						
39	58.0	-.083	.011	.030	.007						
19	65.0	-.121	-.132	-.134	-.165						
20	77.5	-.124	-.122	-.124	-.124						
21	88.0	-.049	-.178	-.180	-.184						
22	95.5	---	---	---	---						
53	2.0	.171	.345	.350	.350						
24	6.0	.078	.098	.103	.117						
35	15.0	-.094	-.096	-.090	-.077						
25	27.5	-.187	-.194	-.192	-.177						
27	40.0	-.181	-.194	-.194	-.177						
28	50.0	-.267	.037	.061	.077						
29	58.0	-.294	-.307	-.307	-.306						
30	67.5	---	---	---	---						
31	77.5	-.090	-.105	-.113	-.126						
32	88.0	.084	.033	.005	.038						
33	95.5	.108	.153	.115	.109						
54	8.0	.276	.303	.306	.313						
15	15.0	-.093	-.107	-.112	-.106						
36	27.5	-.197	-.204	-.206	-.200						
37	40.0	-.270	-.303	-.311	-.309						
38	50.0	-.276	-.301	-.304	-.303						
39	58.0	-.213	-.235	-.251	-.260						
40	67.5	-.184	-.206	-.203	-.216						
43	77.5	-.067	-.064	-.073	-.086						
45	87.5	.008	.091	.040	.066						
46	94.5	.073	.110	.115	.140						
44	2.0	.376	.393	.398	.400						
45	6.0	.110	.100	.097	.100						
49	15.0	-.092	-.091	-.104	-.108						
47	27.5	-.164	-.201	-.248	-.265						
49	40.0	-.239	-.314	-.309	-.307						
50	51.0	-.207	-.209	-.212	-.205						
51	59.0	-.143	-.160	-.163	-.152						
53	67.5	-.101	-.110	-.108	-.100						
52	77.5	-.007	-.008	-.001	-.000						
53	86.5	.109	.201	.201	.215						
54	95.5	.142	.166	.177	.176						
55	2.0	.368	.393	.397	.394						
57	15.0	-.093	-.093	-.099	-.110						
58	27.5	-.150	-.180	-.188	-.184						
59	40.0	-.212	-.291	-.343	-.402						
60	50.0	-.203	-.275	-.315	-.371						
61	59.0	-.137	-.156	-.153	-.194						
62	67.5	-.069	-.090	-.090	-.086						
63	86.5	---	---	---	---						
64	94.5	---	---	---	---						
65	2.0	.401	.399	.396	.394						
66	6.0	.098	.077	.070	.066						
67	15.0	-.031	-.050	-.067	-.080						
68	27.5	-.126	-.169	-.156	-.180						
69	40.0	-.183	-.248	-.268	-.317						
70	50.0	-.180	-.239	-.271	-.307						
73	59.0	-.130	-.177	-.206	-.287						
72	68.0	-.096	-.079	-.076	-.114						
73	77.5	.106	.116	.120	.151						
74	87.5	---	---	---	---						
75	96.5	.119	.154	.151	.197						
76	2.0	.395	.398	.396	.394						
77	6.0	.098	.077	.070	.066						
78	15.0	-.093	-.093	-.112	-.130						
79	27.5	-.150	-.180	-.184	-.207						
80	40.0	-.197	-.260	-.284	-.338						
83	50.0	-.189	-.235	-.253	-.271						
82	59.0	-.130	-.175	-.200	-.237						
85	57.5	-.108	-.151	-.175	-.173						
84	66.5	.119	.139	.150	.177						
85	64.5	.115	.134	.150	.177						

CONFIDENTIAL

NACA

TABLE 33

 $\left[\Lambda = 30^\circ, b_{\alpha_0} = -5.1^\circ, \alpha = 0^\circ \right]$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.60	0.65	0.69	0.735	0.76	0.60	0.60	0.65	0.69	0.735	0.76
1	2.0	.061	.011	0.139	0.177	0.206							
2	4.0	-.078	-.046	-.103	-.041	-.041							
3	15.0	-.147	-.135	-.119	-.094	-.066							
4	27.5	-.235	-.183	-.189	-.161	-.120							
5	40.0	-.305	-.204	-.193	-.159	-.120							
6	50.0	—	—	—	—	—							
7	56.0	—	—	—	—	—							
8	67.5	—	—	—	—	—							
9	77.5	—	—	—	—	—							
10	89.0	—	—	—	—	—							
11	96.0	—	—	—	—	—							
12	2.0	.031	.008	-.008	.150	.160							
13	6.0	-.114	-.091	-.070	-.037	-.008							
14	15.0	-.205	-.204	-.193	-.159	-.126							
15	27.5	-.274	-.308	-.270	-.235	-.190							
16	40.0	-.325	-.401	-.421	-.377	-.329							
17	50.0	-.384	-.460	-.486	-.434	-.384							
18	56.0	-.421	-.487	-.507	-.454	-.404							
19	67.5	-.430	-.496	-.506	-.457	-.405							
20	77.5	-.455	-.524	-.529	-.482	-.430							
21	89.0	-.496	-.580	-.589	-.540	-.480							
22	95.3	—	—	—	—	—							
23	2.0	.052	.008	-.004	.168								
24	6.0	-.134	-.124	-.086	-.061	-.008							
25	15.0	-.245	-.290	-.256	-.206	-.180							
26	27.5	-.307	-.361	-.373	-.345	-.307							
27	40.0	-.354	-.429	-.504	-.475	-.420							
28	50.0	-.387	-.460	-.525	-.495	-.440							
29	56.0	-.406	-.480	-.540	-.505	-.445							
30	67.5	—	—	—	—	—							
31	77.5	-.103	-.118	-.130	-.101	-.064							
32	89.0	-.015	.019	.001	.016	-.024							
33	95.3	—	—	—	—	—							
34	2.0	-.064	-.007	-.013	-.003	-.003							
35	12.0	-.245	-.290	-.256	-.206	-.180							
36	27.5	-.307	-.361	-.373	-.345	-.307							
37	40.0	-.354	-.429	-.504	-.475	-.420							
38	50.0	-.387	-.460	-.525	-.495	-.440							
39	56.0	-.406	-.480	-.540	-.505	-.445							
40	67.5	—	—	—	—	—							
41	77.5	-.073	-.078	-.086	-.058	-.039							
42	89.0	-.001	.013	.002	.006	-.020							
43	94.2	—	—	—	—	—							
44	2.0	.061	.008	-.004	.150	.171	.201						
45	6.0	-.132	-.146	-.139	-.102	-.067	-.033						
46	15.0	-.287	-.306	-.309	-.269	-.236	-.198						
47	27.5	-.367	-.416	-.414	-.365	-.324	-.284						
48	40.0	-.401	-.482	-.534	-.495	-.451	-.404						
49	50.0	-.430	-.504	-.563	-.525	-.477	-.427						
50	56.0	-.449	-.520	-.577	-.538	-.481	-.431						
51	67.5	—	—	—	—	—	—						
52	77.5	-.017	-.025	-.026	-.024	-.018	-.010						
53	89.0	-.173	-.194	-.196	-.180	-.160	-.094						
54	95.3	—	—	—	—	—	—						
55	2.0	.031	.008	-.008	.150	.169	.169						
56	6.0	-.115	-.126	-.130	-.103	-.068	-.035						
57	15.0	-.245	-.275	-.283	-.253	-.215	-.175						
58	27.5	-.307	-.361	-.413	-.381	-.341	-.296						
59	40.0	-.354	-.429	-.504	-.475	-.420	-.376						
60	50.0	-.387	-.460	-.525	-.495	-.440	-.395						
61	56.0	-.406	-.480	-.540	-.505	-.445	-.398						
62	67.5	—	—	—	—	—	—						
63	77.5	-.073	-.077	-.077	-.056	-.036	-.020						
64	89.0	—	—	—	—	—	—						
65	2.0	.078	.016	-.006	.107	.139	.167						
66	6.0	-.091	-.123	-.136	-.111	-.074	-.039						
67	15.0	-.187	-.217	-.271	-.218	-.177	-.120						
68	27.5	-.230	-.267	-.327	-.265	-.221	-.168						
69	40.0	-.284	-.340	-.405	-.361	-.312	-.266						
70	50.0	-.305	-.367	-.423	-.381	-.332	-.285						
71	56.0	-.324	-.386	-.443	-.401	-.352	-.306						
72	67.5	—	—	—	—	—	—						
73	77.5	-.100	-.115	-.121	-.111	-.079	-.039						
74	87.2	—	—	—	—	—	—						
75	96.8	-.134	-.162	-.170	-.134	-.151	-.090						
76	2.0	.097	.064	-.059	.071	.090	.106						
77	6.0	-.138	-.150	-.173	-.169	-.152	-.120						
78	15.0	-.248	-.264	-.285	-.212	-.193	-.160						
79	27.5	-.298	-.306	-.360	-.441	-.442	-.409						
80	40.0	-.326	-.363	-.377	-.405	-.451	-.417						
81	50.0	—	—	—	—	—	—						
82	56.0	-.148	-.208	-.205	-.197	-.169	-.140						
83	67.5	—	—	—	—	—	—						
84	88.3	-.151	-.194	-.169	-.189	-.160	-.105						
85	94.2	—	—	—	—	—	—						
86	2.0	.097	.064	-.059	.071	.090	.106						
87	6.0	-.138	-.150	-.173	-.169	-.152	-.120						
88	15.0	-.248	-.264	-.285	-.212	-.193	-.160						
89	27.5	-.298	-.306	-.360	-.441	-.442	-.409						
90	40.0	-.326	-.363	-.377	-.405	-.451	-.417						
91	50.0	—	—	—	—	—	—						
92	56.0	-.148	-.208	-.205	-.197	-.169	-.140						
93	67.5	—	—	—	—	—	—						
94	88.3	-.151	-.194	-.169	-.189	-.160	-.105						
95	94.2	—	—	—	—	—	—						
96	2.0	.097	.064	-.059	.071	.090	.106						
97	6.0	-.138	-.150	-.173	-.169	-.152	-.120						
98	15.0	-.248	-.264	-.285	-.212	-.193	-.160						
99	27.5	-.298	-.306	-.360	-.441	-.442	-.409						
100	40.0	-.326	-.363	-.377	-.405	-.451	-.417						
101	50.0	—	—	—	—	—	—						
102	56.0	-.148	-.208	-.205	-.197	-.169	-.140						
103	67.5	—	—	—	—	—	—						
104	88.3	-.151	-.194	-.169	-.189	-.160	-.105						
105	94.2	—	—	—	—	—	—						
106	2.0	.097	.064	-.059	.071	.090	.106						
107	6.0	-.138	-.150	-.173	-.169	-.152	-.120						
108	15.0	-.248	-.264	-.285	-.212	-.193	-.160						
109	27.5	-.298	-.306	-.360	-.441	-.442	-.409						
110	40.0	-.326	-.363	-.377	-.405	-.451	-.417						
111	50.0	—	—	—	—	—	—						
112													

TABLE 34

 $\Delta = 30^\circ, \theta_m = -5.1^\circ, \alpha = 2^\circ$

CONFIDENTIAL

Tube	Per-cent-chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0	-0.006	-0.206	-0.156	-0.093	-0.046							
2	6.0	-0.308	-0.268	-0.211	-0.195	-0.143							
3	18.0	-0.266	-0.279	-0.251	-0.215	-0.176							
4	27.0	-0.266	-0.213	-0.202	-0.175	-0.146							
5	40.0	--	--	--	--	--							
6	53.0	--	--	--	--	--							
7	65.0	--	--	--	--	--							
8	67.5	--	--	--	--	--							
9	77.5	--	--	--	--	--							
10	87.5	--	--	--	--	--							
11	94.0	--	--	--	--	--							
12	2.0	-0.347	-0.271	-0.209	-0.140	-0.088							
13	6.0	-0.359	-0.317	-0.260	-0.244	-0.200							
14	15.0	-0.359	-0.317	-0.260	-0.244	-0.200							
15	27.5	-0.351	-0.340	-0.292	-0.277	-0.234							
16	40.0	-0.307	-0.321	-0.265	-0.245	-0.200							
17	50.0	-0.311	-0.340	-0.280	-0.265	-0.217							
18	52.0	-0.342	-0.321	-0.264	-0.246	-0.207							
19	67.5	-0.268	-0.304	-0.246	-0.226	-0.176							
20	77.5	-0.379	-0.287	-0.240	-0.224	-0.176							
21	86.0	-0.071	-0.101	-0.156	-0.200	-0.342							
22	95.3	--	--	--	--	--							
23	2.0	-0.307	-0.292	-0.248	-0.160	-0.107							
24	6.0	-0.304	-0.306	-0.242	-0.164	-0.099							
25	13.0	-0.403	-0.449	-0.412	-0.368	-0.319							
26	27.5	-0.321	-0.301	-0.267	-0.241	-0.165							
27	40.0	-0.441	-0.601	-0.608	-0.573	-0.501							
28	50.0	-0.304	-0.355	-0.368	-0.337	-0.296							
29	55.0	-0.368	-0.329	-0.367	-0.357	-0.309							
30	57.5	--	--	--	--	--							
31	67.5	-0.345	-0.345	-0.304	-0.274	-0.211							
32	86.0	-0.001	-0.005	-0.007	-0.010	-0.021							
33	95.3	-0.013	-0.016	-0.016	-0.016	-0.026							
34	2.0	-0.303	-0.316	-0.312	-0.231	-0.165							
35	15.0	-0.360	-0.360	-0.476	-0.418	-0.366							
36	27.5	-0.311	-0.366	-0.369	-0.314	-0.271							
37	40.0	-0.450	-0.647	-0.647	-0.597	-0.597							
38	50.0	-0.313	-0.378	-0.384	-0.320	-0.264							
39	52.0	-0.370	-0.417	-0.417	-0.364	-0.324							
40	67.5	-0.337	-0.337	-0.369	-0.335	-0.284							
41	77.5	-0.111	-0.110	-0.130	-0.163	-0.186							
42	87.5	-0.007	-0.006	-0.006	-0.020	-0.161							
43	94.2	-0.005	-0.005	-0.005	-0.007	-0.020							
44	2.0	-0.359	-0.313	-0.334	-0.265	-0.125	-0.070						
45	6.0	-0.387	-0.377	-0.400	-0.365	-0.309	-0.239						
46	15.0	-0.310	-0.315	-0.308	-0.292	-0.217	-0.160						
47	27.5	-0.318	-0.360	-0.367	-0.319	-0.267	-0.200						
48	40.0	-0.318	-0.360	-0.367	-0.319	-0.267	-0.200						
49	50.0	-0.370	-0.316	-0.367	-0.326	-0.265	-0.200						
50	52.0	-0.331	-0.359	-0.358	-0.345	-0.269	-0.200						
51	67.5	-0.104	-0.104	-0.124	-0.159	-0.193	-0.135						
52	77.5	-0.006	-0.006	-0.006	-0.026	-0.080	-0.060						
53	86.5	-0.019	-0.177	-0.178	-0.101	-0.201	-0.105						
54	94.5	-0.135	-0.165	-0.166	-0.047	-0.175	-0.175						
55	2.0	-0.446	-0.449	-0.450	-0.466	-0.428	-0.365	-0.065					
56	6.0	-0.417	-0.404	-0.457	-0.457	-0.429	-0.379						
57	15.0	-0.403	-0.427	-0.427	-0.469	-0.401	-0.363						
58	27.5	-0.397	-0.426	-0.416	-0.477	-0.418	-0.368						
59	40.0	-0.425	-0.444	-0.444	-0.466	-0.429	-0.377						
60	50.0	-0.470	-0.470	-0.468	-0.468	-0.426	-0.376						
61	52.0	-0.400	-0.400	-0.400	-0.400	-0.426	-0.376						
62	67.5	-0.130	-0.107	-0.097	-0.107	-0.155	-0.181						
63	86.5	--	--	--	--	--	--						
64	94.5	--	--	--	--	--	--						
65	2.0	-0.406	-0.440	-0.398	-0.279	-0.163	-0.095						
66	6.0	-0.408	-0.409	-0.411	-0.429	-0.429	-0.275						
67	15.0	-0.395	-0.406	-0.406	-0.411	-0.411	-0.275						
68	27.5	-0.361	-0.411	-0.411	-0.450	-0.420	-0.270						
69	40.0	-0.395	-0.411	-0.411	-0.450	-0.420	-0.270						
70	50.0	-0.310	-0.381	-0.381	-0.426	-0.392	-0.262						
71	52.0	-0.317	-0.365	-0.365	-0.421	-0.394	-0.262						
72	67.5	-0.078	-0.078	-0.078	-0.118	-0.158	-0.201						
73	77.5	-0.062	-0.107	-0.108	-0.088	-0.165	-0.181						
74	87.2	--	--	--	--	--	--						
75	94.8	-0.135	-0.178	-0.180	-0.154	-0.108	-0.006						
76	2.0	-0.354	-0.419	-0.419	-0.419	-0.403	-0.303						
77	6.0	-0.378	-0.500	-0.490	-0.490	-0.398	-0.331						
78	15.0	-0.398	-0.445	-0.500	-0.490	-0.490	-0.375						
79	27.5	-0.364	-0.429	-0.429	-0.429	-0.429	-0.375						
80	40.0	-0.395	-0.448	-0.513	-0.513	-0.413	-0.375						
81	50.0	-0.279	-0.360	-0.401	-0.401	-0.399	-0.399						
82	52.0	-0.211	-0.211	-0.211	-0.211	-0.211	-0.211						
83	67.5	-0.119	-0.003	-0.003	-0.116	-0.294	-0.294						
84	86.3	-0.115	-0.150	-0.169	-0.166	-0.081	-0.150						
85	94.2	-0.136	-0.150	-0.176	-0.164	-0.053	-0.117						

CONFIDENTIAL

NACA

TABLE 35

 $\Delta = 30^\circ, \delta_{\alpha_0} = -5.1^\circ, \alpha = 4^\circ$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE							
		Wing Number						Wing Number							
		0.60	0.80	0.85	0.88	0.925	0.98			0.60	0.80	0.85	0.88	0.925	0.98
A 1	2.0	-0.722	-0.619	-0.549	-0.444	-0.151									
N	6.0	-0.299	-0.329	-0.404	-0.421	-0.354	-0.306								
7	15.0	-0.430	-0.438	-0.405	-0.364	-0.354	-0.306								
8	27.5	-0.392	-0.395	-0.406	-0.350	-0.350	-0.296								
9	36.0	-	-	-	-	-	-								
6	60.0	-	-	-	-	-	-								
7	67.5	-	-	-	-	-	-								
9	77.5	-	-	-	-	-	-								
13	87.5	-	-	-	-	-	-								
11	96.0	-	-	-	-	-	-								
12	8.0	-0.811	-0.767	-0.614	-0.306	-0.143									
13	8.0	-0.641	-0.601	-0.526	-0.446	-0.326									
14	15.0	-0.516	-0.555	-0.515	-0.411	-0.390									
15	27.5	-0.489	-0.575	-0.550	-0.494	-0.385									
16	40.0	-0.484	-0.604	-0.519	-0.467	-0.314									
17	50.0	-0.446	-0.675	-0.691	-0.577	-0.461									
18	53.0	-0.382	-0.639	-0.748	-0.631	-0.523									
19	67.5	-0.295	-0.631	-0.649	-0.611	-0.507									
20	77.5	-0.202	-0.552	-0.542	-0.602	-0.505									
21	88.0	-0.087	-0.126	-0.260	-0.342	-0.305									
22	95.3	-	-	-	-	-									
23	2.0	-0.401	-0.116	-0.683	-0.543	-0.348									
24	8.0	-0.705	-0.740	-0.701	-0.609	-0.505									
25	15.0	-0.469	-0.648	-0.604	-0.527	-0.487									
26	27.5	-0.511	-0.481	-0.468	-0.427	-0.354									
27	40.0	-0.526	-0.673	-0.658	-0.706	-0.610									
28	47.0	-0.452	-0.700	-0.781	-0.783	-0.661									
29	50.0	-0.453	-0.720	-0.724	-0.734	-0.676									
30	53.0	-0.395	-0.673	-0.776	-0.724	-0.686									
31	67.5	-	-	-	-	-									
32	77.5	-0.160	-0.164	-0.367	-0.699	-0.570									
33	88.0	-0.006	-0.001	-0.081	-0.106	-0.277									
34	95.3	-0.054	-0.096	-0.095	-0.075	-0.153									
35	2.0	-1.085	-0.925	-0.782	-0.600	-0.400									
36	8.0	-1.058	-1.019	-0.870	-0.724	-0.514									
37	15.0	-0.956	-0.784	-0.700	-0.602	-0.407									
38	27.5	-0.913	-0.853	-0.833	-0.720	-0.509									
39	40.0	-0.891	-0.811	-0.773	-0.682	-0.565									
40	50.0	-0.829	-0.550	-0.732	-0.671	-0.507									
41	53.0	-1.014	-1.014	-0.705	-0.602	-0.407									
42	67.5	-1.377	-1.125	-0.706	-0.481	-0.376									
43	77.5	-1.093	-0.908	-0.706	-0.502	-0.360									
44	88.0	-0.095	-0.057	-0.190	-0.404	-0.347									
45	95.3	-0.072	-0.104	-0.012	-0.202	-0.107	-0.308								
46	2.0	-1.074	-1.019	-0.770	-0.590	-0.460									
47	8.0	-1.056	-1.019	-0.870	-0.724	-0.514									
48	15.0	-0.879	-0.802	-0.772	-0.673	-0.501									
49	27.5	-0.937	-0.853	-0.833	-0.720	-0.509									
50	40.0	-0.911	-0.811	-0.773	-0.682	-0.565									
51	50.0	-1.014	-1.014	-0.705	-0.602	-0.407									
52	53.0	-1.056	-1.077	-0.706	-0.502	-0.347	-0.296								
53	67.5	-1.072	-1.019	-0.870	-0.724	-0.514									
54	77.5	-1.093	-1.045	-0.813	-0.607	-0.406									
55	88.0	-0.072	-0.104	-0.012	-0.202	-0.107	-0.308								
56	95.3	-0.109	-0.141	-0.089	-0.159	-0.068	-0.199								
57	2.0	-1.074	-1.019	-0.870	-0.724	-0.514									
58	8.0	-0.981	-0.802	-0.773	-0.682	-0.565									
59	15.0	-0.937	-0.853	-0.833	-0.720	-0.509									
60	27.5	-0.977	-0.878	-0.791	-0.696	-0.579									
61	40.0	-0.893	-0.846	-0.772	-0.671	-0.560									
62	50.0	-1.014	-1.014	-0.705	-0.602	-0.407									
63	53.0	-1.056	-1.077	-0.706	-0.502	-0.347	-0.296								
64	67.5	-1.093	-1.045	-0.813	-0.607	-0.406									
65	77.5	-1.074	-1.019	-0.870	-0.724	-0.514									
66	88.0	-0.087	-0.105	-0.021	-0.154	-0.011	-0.201								
67	95.3	-0.109	-0.141	-0.089	-0.159	-0.068	-0.199								
68	2.0	-1.074	-1.019	-0.870	-0.724	-0.514									
69	27.5	-0.977	-0.878	-0.791	-0.696	-0.579									
70	50.0	-1.056	-1.077	-0.706	-0.502	-0.347	-0.296								
71	53.0	-1.093	-1.045	-0.813	-0.607	-0.406									
72	67.5	-1.019	-1.057	-0.809	-0.602	-0.406	-0.356								
73	77.5	-1.041	-0.972	-0.833	-0.623	-0.424									
74	87.5	-	-	-	-	-	-								
75	96.0	-0.108	-0.177	-0.122	-0.203	-0.103	-0.267								
76	2.0	-1.074	-1.019	-0.870	-0.724	-0.514									
77	6.0	-0.981	-0.924	-0.866	-0.765	-0.650									
78	15.0	-0.479	-0.898	-0.804	-0.704	-0.505									
79	27.5	-0.811	-0.813	-0.770	-0.682	-0.568									
80	40.0	-0.776	-0.854	-0.821	-0.721	-0.609									
81	42.0	-0.917	-0.843	-0.799	-0.607	-0.545									
82	59.0	-0.211	-0.209	-0.115	-0.198	-0.164	-0.190								
83	87.5	-0.091	-0.073	-0.016	-0.130	-0.113	-0.162								
84	96.0	-0.110	-0.141	-0.139	-0.099	-0.117	-0.204								
85	94.8	-0.109	-0.157	-0.148	-0.093	-0.096	-0.197								

CONFIDENTIAL



TABLE 36

 $\Lambda = 30^\circ, \delta_{\text{ch}} = -0.1^\circ, \alpha = 7^\circ$

CONFIDENTIAL

Tube	Per-	cent	chord	UPPER SURFACE						LOWER SURFACE						
				Mach Number						Mach Number						
				0.60	0.80	0.85	0.89	0.93	0.96	0.60	0.80	0.85	0.89	0.93	0.96	
A 1	2.0	-0.09	-1.361	-1.133	-0.961	-0.807				65	3.0	0.930	0.988	0.973	0.968	0.972
2	6.0	-0.307	-1.197	-1.011	-0.877	-0.603				67	10.0	-	-	-	-	-
3	15.0	-0.605	-0.911	-0.608	-0.506	-0.408				68	25.0	.169	.179	.176	.173	.189
4	27.5	-0.614	-0.610	-0.563	-0.512	-0.475				69	41.0	-	-	-	-	-
5	40.0	-	-	-	-	-				70	62.5	-	-	-	-	-
6	50.0	-	-	-	-	-				71	72.5	-	-	-	-	-
7	60.0	-	-	-	-	-				72	94.0	-	-	-	-	-
8	67.5	-	-	-	-	-				73	94.0	-	-	-	-	-
9	77.5	-	-	-	-	-				74	94.0	-	-	-	-	-
10	87.5	-	-	-	-	-				75	94.0	-	-	-	-	-
11	96.0	-	-	-	-	-				76	94.0	-	-	-	-	-
812	2.0	-0.046	-1.369	-1.167	-0.991	-0.843				95	3.0	.283	.576	.540	.509	.508
13	6.0	-1.159	-1.363	-1.160	-1.010	-0.876				96	10.0	.367	.339	.311	.294	.307
14	15.0	-0.595	-1.013	-0.849	-0.613	-0.476				97	25.0	.161	.148	.117	.104	.111
15	25.0	-0.642	-0.784	-0.704	-0.609	-0.507				98	41.0	.008	.010	.012	.014	.012
16	40.0	-0.740	-0.799	-0.700	-0.633	-0.500				99	62.5	.006	.019	.043	.070	.084
17	50.0	-0.501	-0.805	-0.704	-0.746	-0.671				100	72.5	.006	.011	.042	.070	.096
18	39.0	-0.848	-0.845	-0.785	-0.739	-0.739				101	72.5	.043	.041	.010	.021	.018
19	77.5	-0.364	-0.503	-0.805	-0.771	-0.710				102	86.3	.107	.105	.078	.043	.027
20	77.5	-0.265	-0.309	-0.593	-0.769	-0.701				103	94.0	-	-	-	-	-
21	88.0	-0.120	-0.161	-0.145	-0.514	-0.633				104	3.0	.295	.294	.281	.214	.208
22	95.0	-	-	-	-	-				105	10.0	.342	.317	.296	.264	.282
23	95.0	-0.046	-0.109	-1.168	-0.980	-0.817				106	25.0	.113	.119	.094	.077	.071
24	6.0	-1.373	-1.363	-1.160	-1.010	-0.876				107	41.0	.020	.016	.035	.062	.077
25	15.0	-0.606	-1.209	-1.069	-0.955	-0.846				108	62.5	.010	.036	.073	.108	.134
26	27.5	-0.606	-0.843	-0.863	-0.777	-0.778				109	72.5	.008	.015	.051	.040	.118
27	40.0	-0.618	-0.819	-0.873	-0.760	-0.710				110	72.5	.051	.044	.012	.049	.047
28	60.0	-0.501	-0.843	-0.863	-0.785	-0.782				111	86.3	.111	.117	.172	.049	.036
29	88.0	-0.148	-0.573	-1.009	-0.929	-0.843				112	94.0	.156	.161	.210	.077	.063
30	95.0	-0.046	-0.148	-1.168	-0.980	-0.817				113	94.0	-	-	-	-	-
31	77.5	-0.173	-0.185	-0.186	-0.577	-0.647				114	10.0	.359	.377	.309	.281	.271
32	87.5	-0.064	-0.064	-0.065	-0.508	-0.548				115	25.0	.140	.140	.081	.058	.045
33	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				116	41.0	-	-	-	-	-
34	94.2	-0.016	-0.046	-0.046	-0.508	-0.548				117	62.5	.006	.036	.083	.106	.146
35	94.2	-0.016	-0.046	-0.046	-0.508	-0.548				118	72.5	.007	.013	.064	.107	.121
36	94.2	-0.016	-0.046	-0.046	-0.508	-0.548				119	86.3	.074	.097	.026	.026	.049
37	94.2	-0.016	-0.046	-0.046	-0.508	-0.548				120	97.4	.130	.130	.080	.050	.040
38	94.2	-0.016	-0.046	-0.046	-0.508	-0.548				121	96.2	.130	.117	.037	.004	.008
39	2.0	-1.373	-1.363	-1.160	-1.010	-0.876				122	3.0	.610	.570	.533	.510	.493
40	6.0	-1.457	-1.450	-1.184	-1.044	-0.807				123	10.0	.330	.332	.286	.251	.265
41	15.0	-0.606	-1.209	-1.069	-0.955	-0.846				124	25.0	.120	.120	.094	.079	.064
42	27.5	-0.606	-0.843	-0.863	-0.777	-0.778				125	41.0	.006	.039	.079	.097	.110
43	40.0	-0.606	-0.843	-0.863	-0.785	-0.782				126	62.5	.010	.014	.066	.110	.129
44	60.0	-0.501	-0.843	-0.863	-0.785	-0.782				127	72.5	.009	.016	.087	.141	.172
45	80.0	-0.490	-0.843	-0.863	-0.785	-0.782				128	86.3	.037	.037	.032	.087	.105
46	80.0	-0.490	-0.843	-0.863	-0.785	-0.782				129	97.4	.061	.061	.009	.027	.078
47	80.0	-0.490	-0.843	-0.863	-0.785	-0.782				130	86.3	.117	.131	.018	.005	.008
48	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				131	94.1	.137	.163	.079	.013	.017
49	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				132	3.0	.610	.570	.533	.510	.493
50	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				133	10.0	.330	.332	.286	.251	.265
51	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				134	25.0	.120	.120	.094	.079	.064
52	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				135	41.0	.023	.006	.059	.068	.126
53	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				136	62.5	.006	.059	.115	.169	.204
54	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				137	72.5	.028	.047	.087	.141	.178
55	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				138	86.3	.117	.131	.018	.005	.008
56	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				139	94.1	.074	.098	.005	.001	.004
57	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				140	94.0	.036	.019	.120	.200	.247
58	27.5	-0.606	-1.158	-0.966	-0.907	-0.825				141	3.0	.613	.567	.506	.489	.494
59	40.0	-0.606	-1.158	-0.966	-0.907	-0.825				142	10.0	.330	.337	.286	.251	.265
60	40.0	-0.606	-1.158	-0.966	-0.907	-0.825				143	25.0	.120	.120	.094	.079	.064
61	50.0	-0.606	-1.158	-0.966	-0.907	-0.825				144	41.0	.006	.059	.115	.170	.191
62	67.5	-0.173	-0.185	-0.186	-0.508	-0.548				145	62.5	.042	.100	.176	.241	.285
63	77.5	-0.104	-0.104	-0.104	-0.508	-0.548				146	72.5	.033	.059	.123	.195	.259
64	87.5	-0.046	-0.046	-0.046	-0.508	-0.548				147	86.3	.028	.047	.120	.190	.240
65	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				148	97.4	.026	.011	.046	.076	.117
66	2.0	-1.373	-1.363	-1.160	-1.010	-0.876				149	96.0	.043	.059	.120	.190	.247
67	6.0	-1.373	-1.363	-1.160	-1.010	-0.876				150	3.0	.539	.490	.450	.419	.403
68	15.0	-0.770	-1.204	-1.024	-0.964	-0.875				151	10.0	.252	.210	.169	.138	.096
69	27.5	-0.610	-1.158	-0.966	-0.907	-0.825				152	41.0	.043	.017	.123	.189	.215
70	37.5	-0.597	-1.157	-0.965	-0.906	-0.826				153	62.5	.043	.017	.123	.189	.215
71	40.0	-0.597	-1.157	-0.965	-0.906	-0.826				154	72.5	.043	.017	.123	.189	.215
72	67.5	-0.130	-0.143	-0.143	-0.508	-0.548				155	86.3	.043	.017	.123	.189	.215
73	77.5	-0.036	-0.105	-0.105	-0.508	-0.548				156	97.4	.043	.017	.123	.189	.215
74	87.5	-0.046	-0.046	-0.046	-0.508	-0.548				157	94.0	.040	.073	.102	.184	.207
75	95.0	-0.046	-0.046	-0.046	-0.508	-0.548				158	94.0	.040	.073	.102	.184	.207
76	87.5	-0.046	-0.046	-0.046	-0.508	-0.5										

TABLE 37

 $[A = 30^\circ, B_{ch} = 5.0^\circ, \alpha = -2^\circ]$

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE				LOWER SURFACE			
		0.60	0.80	0.85	0.90	0.60	0.80	0.85	0.90
A 1	2.0	.316	.349	.363	.376				
2	6.0	.104	.135	.151	.169				
3	15.0	-.021	-.002	.011	.027				
4	27.6	-.101	-.101	-.092	-.075				
5	45.0	--	--	--	--				
6	50.0	--	--	--	--				
7	59.0	--	--	--	--				
8	67.5	--	--	--	--				
9	75.0	--	--	--	--				
10	87.5	--	--	--	--				
11	96.0	--	--	--	--				
B12	2.0	.306	.334	.345	.355				
13	6.0	.086	.105	.118	.131				
14	15.0	-.075	-.068	-.057	-.042				
15	27.6	-.171	-.193	-.187	-.179				
16	45.0	-.265	-.279	-.271	-.261				
17	50.0	-.265	-.279	-.271	-.261				
18	59.0	-.265	-.279	-.271	-.261				
19	67.5	-.193	-.179	-.197	-.164				
20	75.0	-.135	-.167	-.163	-.161				
21	87.5	-.135	-.167	-.163	-.161				
22	96.0	-.066	-.080	-.085	-.147				
C23	2.0	.303	.336	.345	.359				
24	6.0	.070	.089	.099	.109				
25	15.0	-.097	-.109	-.104	-.098				
26	27.6	-.183	-.198	-.203	-.193				
27	45.0	-.276	-.293	-.294	-.280				
28	50.0	-.276	-.293	-.294	-.280				
29	59.0	-.276	-.293	-.294	-.280				
30	67.5	-.187	-.198	-.197	-.193				
31	75.0	-.129	-.160	-.150	-.146				
32	87.5	-.129	-.160	-.150	-.146				
33	96.0	-.062	-.074	-.074	-.071				
D34	2.0	.295	.326	.335	.346				
35	15.0	-.109	-.116	-.119	-.111				
36	27.6	-.206	-.211	-.212	-.206				
37	45.0	-.296	-.309	-.313	-.313				
38	50.0	-.296	-.309	-.313	-.313				
39	59.0	-.296	-.309	-.313	-.313				
40	67.5	-.146	-.166	-.174	-.175				
41	75.0	-.105	-.126	-.135	-.136				
42	87.5	-.105	-.126	-.135	-.136				
43	96.0	-.043	-.051	-.057	-.058				
E44	2.0	.295	.326	.335	.346				
45	6.0	-.071	-.075	-.083	-.109				
46	15.0	-.095	-.109	-.103	-.103				
47	27.6	-.195	-.204	-.206	-.206				
48	45.0	-.285	-.298	-.302	-.302				
49	50.0	-.285	-.298	-.302	-.302				
50	59.0	-.285	-.298	-.302	-.302				
51	67.5	-.146	-.166	-.174	-.175				
52	75.0	-.105	-.126	-.135	-.136				
53	87.5	-.105	-.126	-.135	-.136				
54	96.0	-.043	-.051	-.057	-.058				
F55	2.0	.295	.326	.335	.346				
56	6.0	-.071	-.075	-.083	-.109				
57	15.0	-.095	-.109	-.103	-.103				
58	27.6	-.195	-.204	-.206	-.206				
59	45.0	-.285	-.298	-.302	-.302				
60	50.0	-.285	-.298	-.302	-.302				
61	59.0	-.285	-.298	-.302	-.302				
62	67.5	-.146	-.166	-.174	-.175				
63	75.0	-.105	-.126	-.135	-.136				
64	87.5	-.105	-.126	-.135	-.136				
65	96.0	-.043	-.051	-.057	-.058				
G66	2.0	.295	.326	.335	.346				
66	6.0	-.071	-.075	-.083	-.109				
67	15.0	-.107	-.109	-.105	-.101				
68	27.6	-.206	-.216	-.223	-.227				
69	45.0	-.296	-.309	-.316	-.313				
70	50.0	-.296	-.309	-.316	-.313				
71	59.0	-.296	-.309	-.316	-.313				
72	67.5	-.153	-.159	-.157	-.159				
73	75.0	-.117	-.126	-.135	-.136				
74	87.5	-.132	-.142	-.148	-.150				
75	96.0	.117	.124	.126	.139				
H76	2.0	.295	.326	.335	.346				
77	6.0	-.071	-.075	-.083	-.109				
78	15.0	-.137	-.140	-.143	-.165				
79	27.6	-.280	-.275	-.277	-.294				
80	45.0	-.306	-.298	-.297	-.307				
81	50.0	-.306	-.298	-.297	-.307				
82	59.0	-.306	-.298	-.297	-.307				
83	67.5	-.190	-.170	-.158	-.160				
84	87.5	-.069	-.039	-.036	-.019				
85	96.0	.076	.101	.100	.100				

CONFIDENTIAL



TABLE 30

 $[A = 30^\circ, \theta_{\infty} = 3.0^\circ, \alpha = 0^\circ]$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE					LOWER SURFACE				
		0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89
A 1	2.0	.005	0.106	0.135	0.160	0.012					
2	8.0	-.005	-.049	-.060	.005	-.012					
3	15.0	-.125	-.137	-.120	-.098	-.083					
4	27.5	-.199	-.203	-.190	-.168	-.157					
5	40.0	--	--	--	--	--					
6	50.0	--	--	--	--	--					
7	55.0	--	--	--	--	--					
8	67.5	--	--	--	--	--					
9	77.5	--	--	--	--	--					
10	87.5	--	--	--	--	--					
11	95.0	--	--	--	--	--					
12	2.0	.002	-.077	-.087	.140	.011					
13	8.0	-.125	-.092	-.070	-.130	-.139					
14	15.0	-.200	-.210	-.195	-.169	-.156					
15	27.5	-.276	-.269	-.303	-.276	-.263					
16	40.0	-.360	-.401	-.417	-.375	-.365					
17	50.0	-.360	-.429	-.476	-.462	-.478					
18	55.0	-.299	-.408	-.494	-.483	-.446					
19	67.5	-.335	-.326	-.421	-.500	-.569					
20	77.5	-.159	-.219	-.261	-.346	-.517					
21	85.0	-.056	-.099	-.113	-.203	-.365					
22	95.0	--	--	--	--	--					
225	2.0	.006	.001	-.095	-.113	.081					
24	8.0	-.142	-.124	-.100	-.066	-.099					
25	15.0	-.284	-.262	-.269	-.239	-.205					
26	27.5	-.311	-.369	-.371	-.344	-.325					
27	40.0	-.361	-.468	-.503	-.441	-.450					
28	50.0	-.345	-.468	-.506	-.562	-.511					
29	55.0	-.312	-.419	-.560	-.600	-.500					
30	57.5	-.105	-.129	-.199	-.403	-.547					
31	67.5	-.007	.008	.013	-.019	-.179					
32	85.0	-.007	.008	.013	-.019	-.179					
33	95.0	--	--	--	--	--					
354	2.0	-.003	-.017	-.016	-.061	-.066					
55	15.0	-.299	-.293	-.265	-.255	-.283					
56	27.5	-.324	-.346	-.345	-.365	-.369					
57	40.0	-.354	-.476	-.509	-.516	-.513					
58	50.0	-.325	-.409	-.500	-.564	-.583					
59	55.0	-.265	-.369	-.390	-.564	-.621					
60	57.5	-.262	-.356	-.391	-.507	-.597					
61	77.5	-.201	-.065	-.056	-.318	-.511					
62	87.5	-.018	.029	.042	-.054	-.211					
63	94.2	.097	-.113	-.126	-.066	-.036					
64	2.0	-.002	.066	.106	.156	.007	0.210				
65	8.0	-.170	-.159	-.137	-.068	-.048					
66	15.0	-.268	-.269	-.266	-.256	-.269					
67	27.5	-.325	-.382	-.415	-.340	-.374					
68	40.0	-.311	-.487	-.568	-.564	-.499					
69	50.0	-.364	-.501	-.573	-.596	-.603					
70	55.0	-.377	-.488	-.548	-.611	-.651					
71	67.5	-.340	-.482	-.548	-.611	-.656					
72	87.5	-.048	.049	.104	.621	-.627					
73	95.0	-.028	-.054	-.077	-.052	-.126					
74	94.5	--	--	--	--	--					
755	2.0	-.043	-.046	-.066	-.124	-.162					
58	8.0	-.176	-.183	-.127	-.063	-.044					
59	15.0	-.273	-.304	-.303	-.273	-.237					
60	27.5	-.331	-.401	-.426	-.404	-.367					
61	40.0	-.364	-.501	-.573	-.596	-.614					
62	50.0	-.377	-.488	-.548	-.611	-.656					
63	67.5	-.340	-.482	-.548	-.611	-.656					
64	85.0	-.028	-.054	-.077	-.052	-.126					
655	2.0	-.043	-.046	-.066	-.124	-.162					
66	8.0	-.209	-.186	-.156	-.079	-.065					
67	15.0	-.268	-.289	-.252	-.229	-.213					
68	27.5	-.313	-.343	-.416	-.379	-.347					
69	40.0	-.377	-.518	-.577	-.560	-.507					
70	50.0	-.387	-.516	-.623	-.660	-.559					
71	59.0	-.351	-.449	-.520	-.517	-.468					
72	67.5	-.307	-.413	-.541	-.530	-.436					
73	77.5	-.273	-.301	-.503	-.585	-.468					
74	87.2	-.046	-.018	.009	-.043	-.164					
75	96.0	.100	-.130	.144	-.050	-.116					
76	2.0	-.102	-.099	-.080	-.046	-.118					
77	8.0	-.232	-.257	-.246	-.196	-.132					
78	15.0	-.316	-.358	-.327	-.287	-.280					
79	27.5	-.314	-.395	-.410	-.356	-.347					
80	40.0	-.328	-.465	-.506	-.446	-.417					
81	50.0	-.348	-.426	-.515	-.560	-.514					
82	59.0	-.311	-.370	-.404	-.429	-.387					
83	67.5	-.252	-.351	-.381	-.397	-.380					
84	86.5	-.003	-.041	-.059	-.003	-.093					
85	94.8	.004	-.107	.120	-.025	-.046					

CONFIDENTIAL

NACA

148

TABLE 39

 $A = 30^\circ, \theta_{\infty} = 5.0^\circ, c = 2^\circ$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		cent	chord	0.60	0.80	0.85	0.88	0.925	0.95	0.60	0.80	0.85	0.88
1	2.0	-0.297	-0.211	-0.168	-0.107	-0.048							
9	4.0	-1.09	-0.46	-0.298	-0.193	-0.115							
4	12.0	-0.297	-0.211	-0.168	-0.107	-0.048							
4	27.5	-0.297	-0.211	-0.168	-0.107	-0.048							
5	40.0	-	-	-	-	-							
6	50.0	-	-	-	-	-							
7	59.0	-	-	-	-	-							
9	67.5	-	-	-	-	-							
9	67.5	-	-	-	-	-							
10	67.5	-	-	-	-	-							
11	66.0	-	-	-	-	-							
619	2.0	-1.96	-1.29	-0.83	-0.51	-0.19	-1.93						
13	4.0	-1.37	-0.71	-0.36	-0.20	-0.06	-1.36						
14	12.0	-1.37	-0.71	-0.36	-0.20	-0.06	-1.36						
15	27.5	-1.39	-0.73	-0.38	-0.21	-0.07	-1.38						
16	40.0	-1.11	-0.59	-0.35	-0.17	-0.06	-1.11						
17	50.0	-1.00	-0.46	-0.30	-0.17	-0.06	-1.00						
18	59.0	-0.95	-0.41	-0.30	-0.17	-0.06	-0.95						
19	67.5	-0.91	-0.38	-0.30	-0.17	-0.06	-0.91						
20	77.5	-0.87	-0.34	-0.30	-0.17	-0.06	-0.87						
21	86.0	-0.70	-0.20	-0.16	-0.10	-0.05	-0.75						
22	85.5	-	-	-	-	-	-						
625	2.0	-1.11	-0.40	-0.26	-0.17	-0.05	-1.05						
24	4.0	-1.02	-0.30	-0.20	-0.12	-0.05	-1.02						
25	12.0	-1.11	-0.49	-0.34	-0.21	-0.11	-1.01						
26	27.5	-1.26	-0.59	-0.40	-0.27	-0.13	-1.25						
27	40.0	-1.00	-0.46	-0.32	-0.20	-0.11	-1.00						
28	50.0	-1.00	-0.46	-0.32	-0.20	-0.11	-1.00						
29	59.0	-1.01	-0.47	-0.33	-0.21	-0.12	-1.01						
30	67.5	-1.13	-0.54	-0.41	-0.27	-0.13	-1.13						
31	77.5	-1.13	-0.54	-0.41	-0.27	-0.13	-1.13						
32	86.0	-0.10	-0.04	-0.01	-0.07	-0.03	-0.09						
33	85.5	.080	.097	.079	.066	.056	.113						
634	2.0	-1.03	-0.39	-0.26	-0.17	-0.05	-1.05						
34	4.0	-1.17	-0.71	-0.47	-0.23	-0.10	-1.17						
35	12.0	-1.14	-0.71	-0.47	-0.23	-0.10	-1.14						
37	40.0	-1.71	-0.69	-0.46	-0.23	-0.10	-1.71						
38	50.0	-1.87	-0.74	-0.51	-0.30	-0.14	-1.87						
39	59.0	-1.71	-0.64	-0.46	-0.23	-0.10	-1.71						
40	67.5	-1.13	-0.38	-0.26	-0.17	-0.06	-1.13						
41	77.5	-1.16	-0.41	-0.29	-0.17	-0.06	-1.16						
42	87.5	.003	.112	.029	.015	.001	.116						
43	87.5	.003	.112	.029	.015	.001	.116						
44	2.0	-1.03	-0.39	-0.26	-0.17	-0.05	-1.05						
45	4.0	-1.46	-1.12	-0.84	-0.50	-0.20	-1.46						
46	12.0	-1.16	-0.50	-0.34	-0.21	-0.11	-1.16						
47	27.5	-1.58	-1.06	-0.78	-0.48	-0.20	-1.58						
48	40.0	-1.66	-1.06	-0.78	-0.48	-0.20	-1.66						
49	50.0	-1.39	-0.68	-0.74	-0.56	-0.26	-1.39						
50	59.0	-1.37	-0.67	-0.73	-0.56	-0.26	-1.37						
51	67.5	-1.04	-0.56	-0.51	-0.37	-0.17	-1.04						
52	77.5	-1.29	-1.19	-0.74	-0.50	-0.29	-1.29						
53	86.0	.108	.116	.062	.046	.020	.107						
54	85.5	.107	.113	.078	.051	.020	.108						
55	2.0	-1.98	-1.46	-1.33	-1.15	-0.85	-1.98						
56	4.0	-1.80	-1.50	-1.47	-1.32	-1.05	-1.80						
57	12.0	-1.49	-1.59	-1.57	-1.45	-1.15	-1.49						
58	27.5	-1.62	-1.60	-1.59	-1.49	-1.20	-1.62						
59	40.0	-1.64	-1.61	-1.59	-1.49	-1.20	-1.64						
60	50.0	-1.61	-1.61	-1.59	-1.49	-1.20	-1.61						
61	59.0	-1.60	-1.60	-1.59	-1.49	-1.20	-1.60						
62	67.5	-1.10	-0.68	-0.65	-0.63	-0.60	-0.68						
63	77.5	-1.09	-0.68	-0.65	-0.63	-0.60	-0.69						
64	86.0	-0.09	.061	.036	.016	.001	.000						
65	2.0	-1.98	-1.46	-1.33	-1.15	-0.85	-1.98						
66	4.0	-1.80	-1.50	-1.47	-1.32	-1.05	-1.80						
67	12.0	-1.49	-1.59	-1.57	-1.45	-1.15	-1.49						
68	27.5	-1.62	-1.60	-1.59	-1.49	-1.20	-1.62						
69	40.0	-1.64	-1.61	-1.59	-1.49	-1.20	-1.64						
70	50.0	-1.61	-1.61	-1.59	-1.49	-1.20	-1.61						
71	59.0	-1.60	-1.60	-1.59	-1.49	-1.20	-1.60						
72	67.5	-1.06	-0.57	-0.66	-0.50	-0.37	-0.66						
73	77.5	-1.06	-0.57	-0.66	-0.50	-0.37	-0.66						
74	87.2	-0.03	.016	.012	.008	.004	.000						
75	86.9	.103	.113	.098	.074	.031	.000						
76	8.0	-1.78	-1.09	-0.99	-0.78	-0.43	-1.78						
77	10.0	-1.09	-0.59	-0.51	-0.37	-0.23	-1.09						
78	15.0	-1.06	-0.57	-0.51	-0.37	-0.23	-1.06						
79	27.5	-1.10	-0.59	-0.51	-0.37	-0.23	-1.10						
80	40.0	-1.07	-0.56	-0.51	-0.37	-0.23	-1.07						
81	50.0	-1.06	-0.56	-0.51	-0.37	-0.23	-1.06						
82	59.0	-1.04	-0.55	-0.51	-0.37	-0.23	-1.04						
83	67.5	-1.04	-0.55	-0.51	-0.37	-0.23	-1.04						
84	86.5	.019	.019	.018	.008	.001	.000						
85	86.9	.003	.003	.003	.001	.001	.000						

NACA

CONFIDENTIAL

TABLE 4

$$[\Lambda = 30^\circ, B_{\perp} = 5.0^\circ, \alpha = 4^\circ]$$

CONFIDENTIAL

CONFIDENTIAL



TABLE 41

 $\Lambda = 30^\circ, b_{\text{ch}} = 5.0^\circ, \alpha = 7^\circ$

CONFIDENTIAL

Tube	Fer- cent chord	UPPER SURFACE						LOWER SURFACE					
		0.60	0.80	0.85	0.89	0.925	0.95	0.60	0.80	0.85	0.89	0.925	0.95
1	2.0	-1.999	-1.176	-1.127	-0.997	-0.811							
2	6.0	-0.909	-1.230	-1.007	-0.876	-0.761							
3	15.0	-0.654	-0.691	-0.632	-0.567	-0.500							
4	27.5	-0.551	-0.534	-0.502	-0.432	-0.473							
5	40.0												
6	50.0												
7	59.0												
8	67.5												
9	77.5												
10	87.5												
11	96.0												
12	2.0	-1.979	-1.129	-1.116	-0.988	-0.810							
13	6.0	-1.182	-1.206	-1.117	-0.980	-0.850							
14	15.0	-0.811	-0.837	-0.809	-0.669	-0.730							
15	27.5	-0.644	-0.703	-0.600	-0.469	-0.508							
16	40.0	-0.501	-0.600	-0.566	-0.467	-0.510							
17	50.0	-0.429	-0.509	-0.529	-0.411	-0.540							
18	59.0	-0.446	-0.576	-0.577	-0.500	-0.521							
19	67.5	-0.501	-0.606	-0.511	-0.466	-0.506							
20	77.5	-0.583	-0.603	-0.580	-0.510	-0.577							
21	86.0	-0.506	-0.579	-0.523	-0.466	-0.508							
22	95.3	-	-	-	-	-							
23	2.0	-0.119	-0.131	-0.152	-0.062	-0.006							
24	6.0	-1.135	-1.390	-1.156	-0.918	-0.867							
25	15.0	-0.826	-1.236	-1.070	-0.933	-0.846							
26	27.5	-0.603	-0.811	-1.004	-0.877	-0.776							
27	40.0	-0.528	-0.626	-0.916	-0.835	-0.729							
28	50.0	-0.536	-0.743	-0.907	-0.814	-0.760							
29	59.0	-0.636	-0.809	-0.977	-0.920	-0.829							
30	67.5	-0.717	-0.826	-0.970	-0.911	-0.849							
31	77.5	-0.748	-0.828	-0.966	-0.874	-0.849							
32	86.0	-0.748	-0.882	-0.999	-0.985	-0.911							
33	95.3	-0.893	-0.950	-1.179	-0.998	-0.911							
34	2.0	-1.926	-1.160	-1.170	-0.972	-0.810							
35	15.0	-0.937	-1.131	-1.131	-0.939	-0.870							
36	27.5	-0.695	-1.253	-1.021	-1.007	-0.900							
37	40.0	-0.528	-0.748	-0.918	-0.870	-0.849							
38	50.0	-0.528	-0.818	-0.948	-0.868	-0.808							
39	59.0	-0.606	-0.801	-0.891	-0.863	-0.845							
40	67.5	-0.701	-0.801	-0.896	-0.871	-0.863							
41	77.5	-0.755	-0.810	-0.901	-0.889	-0.861							
42	86.0	-0.737	-0.859	-0.951	-0.948	-0.893							
43	94.2	-0.811	-0.896	-1.049	-0.941	-0.891							
44	2.0	-1.963	-1.181	-1.199	-0.976	-0.817	-0.653						
45	6.0	-1.468	-1.443	-1.209	-1.030	-0.889	-0.710						
46	15.0	-0.958	-1.348	-1.118	-0.948	-0.880	-0.743						
47	27.5	-0.693	-1.226	-1.003	-0.947	-0.897	-0.780						
48	40.0	-0.607	-1.245	-1.030	-0.915	-0.873	-0.819						
49	50.0	-0.718	-1.318	-1.086	-0.945	-0.893	-0.866						
50	59.0	-0.600	-0.906	-0.747	-0.697	-0.795	-0.785						
51	67.5	-0.779	-1.279	-1.061	-0.961	-0.879	-0.866						
52	77.5	-0.836	-1.332	-1.065	-0.967	-0.874	-0.853						
53	86.0	-0.713	-0.962	-0.831	-0.811	-0.866	-0.845						
54	95.3	-0.871	-0.980	-1.198	-0.946	-0.891	-0.852						
55	2.0	-1.762	-1.126	-1.127	-1.011	-0.836	-0.650						
56	6.0	-1.668	-1.443	-1.269	-1.030	-0.889	-0.710						
57	15.0	-1.153	-1.181	-1.126	-0.942	-0.896	-0.792						
58	27.5	-0.725	-1.254	-1.046	-0.917	-0.870	-0.801						
59	40.0	-0.693	-1.293	-1.061	-0.917	-0.867	-0.803						
60	50.0	-0.746	-1.366	-1.141	-0.967	-0.901	-0.866						
61	59.0	-0.607	-1.313	-1.147	-0.946	-0.894	-0.801						
62	67.5	-0.809	-1.363	-1.189	-1.002	-0.922	-0.876						
63	77.5	-0.772	-1.279	-1.149	-1.026	-0.964	-0.875						
64	94.2	-0.872	-0.972	-1.179	-1.046	-0.934	-0.845						
65	2.0	-1.929	-1.183	-1.264	-1.036	-0.890	-0.613						
66	6.0	-1.460	-1.450	-1.218	-1.056	-0.914	-0.748						
67	15.0	-1.171	-1.310	-1.130	-0.917	-0.860	-0.790						
68	27.5	-0.819	-1.075	-0.911	-0.945	-0.867	-0.803						
69	40.0	-0.696	-1.046	-0.964	-0.936	-0.889	-0.861						
70	50.0	-0.747	-1.107	-0.967	-0.959	-0.890	-0.873						
71	59.0	-0.740	-1.077	-0.954	-0.946	-0.878	-0.863						
72	67.5	-0.899	-1.033	-0.966	-0.906	-0.860	-0.811						
73	77.5	-0.919	-1.278	-1.008	-0.937	-0.848	-0.915						
74	86.0	-0.858	-1.195	-1.020	-0.961	-0.909	-0.877						
75	96.0	-0.920	-1.113	-1.021	-0.900	-0.894	-0.735						
76	2.0	-1.130	-0.963	-1.079	-0.979	-0.898	-0.744						
77	6.0	-1.203	-0.966	-1.028	-0.928	-0.840	-0.789						
78	15.0	-0.896	-0.798	-0.794	-0.839	-0.827	-0.776						
79	27.5	-0.933	-0.956	-0.990	-0.916	-0.867	-0.877						
80	40.0	-0.846	-0.840	-0.895	-0.856	-0.807	-0.879						
81	50.0	-0.712	-1.073	-0.911	-0.875	-0.819	-0.917						
82	59.0	-0.708	-1.049	-0.948	-0.876	-0.816	-0.916						
83	67.5	-0.829	-1.049	-0.979	-0.840	-0.850	-0.875						
84	77.5	-0.863	-0.928	-0.961	-0.918	-0.801	-0.904						
85	94.2	-0.873	-0.916	-0.961	-0.938	-0.801	-0.892						

CONFIDENTIAL



TABLE 42

 $[A = 30^\circ, b_{n_1} = 10.0^\circ, \alpha = -\theta]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE				LOWER SURFACE			
		cent-	Mech Number			cent-	Mech Number		
			chord	0.60	0.80	0.90	chord	0.60	0.80
A 1	2.0	.104	.346	.369	.376				
2	6.0	.099	.133	.151	.169				
3	15.0	-.033	-.006	.010	.006				
4	27.5	-.109	-.101	-.090	-.079				
5	40.0	--	--	--	--				
6	50.0	--	--	--	--				
7	67.5	--	--	--	--				
8	87.5	--	--	--	--				
9	77.5	--	--	--	--				
10	87.5	--	--	--	--				
11	96.0	--	--	--	--				
B12	2.0	.294	.331	.345	.357				
13	6.0	.071	.148	.148	.133				
14	15.0	-.041	-.068	-.079	-.079				
15	27.5	-.101	-.180	-.183	-.168				
16	40.0	-.251	-.296	-.299	-.277				
17	50.0	-.271	-.271	-.271	-.271				
18	59.0	-.260	-.351	-.422	-.416				
19	67.5	-.214	-.200	-.192	-.187				
20	77.5	-.156	-.217	-.259	-.251				
21	86.0	-.096	-.060	-.080	-.127				
22	95.3	--	--	--	--				
C23	2.0	.297	.331	.362	.376				
24	6.0	.061	.087	.101	.115				
25	15.0	-.103	-.103	-.093	-.076				
26	27.5	-.210	-.260	-.239	-.225				
27	40.0	-.297	-.314	-.379	-.362				
28	50.0	-.208	-.365	-.456	-.471				
29	59.0	-.256	-.348	-.410	-.397				
30	67.5	-.197	-.200	-.200	-.200				
31	77.5	-.066	-.120	-.121	-.206				
32	86.0	-.018	-.016	-.018	-.020				
33	95.3	.001	.115	.103	.113				
D24	2.0	.286	.309	.302	.311				
35	15.0	-.113	-.121	-.118	-.107				
36	27.5	-.215	-.274	-.276	-.276				
37	40.0	-.247	-.315	-.405	-.439				
38	50.0	-.297	-.366	-.459	-.542				
39	59.0	-.237	-.301	-.390	-.490				
40	67.5	-.210	-.268	-.359	-.489				
41	77.5	-.105	-.057	-.061	-.081				
42	87.5	-.026	.029	.037	.068				
43	94.2	.036	.110	.119	.135				
E44	2.0	.284	.317	.302	.305				
45	6.0	.061	.091	.101	.116				
46	15.0	-.116	-.110	-.109	-.098				
47	27.5	-.231	-.290	-.284	-.262				
48	40.0	-.210	-.366	-.402	-.436				
49	50.0	-.117	-.186	-.186	-.182				
50	59.0	-.201	-.264	-.305	-.402				
51	67.5	-.236	-.290	-.307	-.395				
52	77.5	-.179	-.179	-.099	-.092				
53	86.0	-.130	-.111	-.113	-.123				
54	95.5	-.100	.116	.116	.136				
F55	2.0	.281	.304	.371	.373				
56	6.0	-.039	.094	.114	.121				
57	15.0	-.117	-.117	-.105	-.101				
58	27.5	-.200	-.260	-.262	-.266				
59	40.0	-.196	-.304	-.417	-.441				
60	50.0	-.195	-.414	-.468	-.560				
61	59.0	-.146	-.345	-.440	-.577				
62	67.5	-.105	-.302	-.370	-.434				
63	77.5	-.130	-.126	-.126	-.129				
64	86.0	-.100	--	--	--				
65	94.4	--	--	--	--				
G56	2.0	.279	.301	.371	.375				
66	6.0	-.004	.072	.101	.118				
67	15.0	-.15%	-.15%	-.110	-.098				
68	27.5	-.267	-.300	-.276	-.269				
69	40.0	-.200	-.374	-.474	-.514				
70	50.0	-.199	-.471	-.549	-.681				
71	59.0	-.149	-.334	-.512	-.606				
72	67.5	-.106	-.367	-.467	-.545				
73	77.5	-.15%	-.363	-.429	-.536				
74	87.2	-.10%	-.23%	-.113	-.071				
75	98.8	.038	.056	.051	.073				
H76	2.0	.278	.302	.370	.377				
76	6.0	-.001	-.011	-.019	-.026				
78	15.0	-.170	-.181	-.179	-.160				
79	27.5	-.271	-.320	-.315	-.275				
80	40.0	-.234	-.418	-.499	-.593				
81	50.0	-.174	-.404	-.519	-.605				
82	59.0	-.110	-.376	-.459	-.572				
83	67.5	-.076	-.319	-.449	-.537				
84	86.3	-.10%	-.06%	-.07%	-.00%				
85	94.2	.028	.067	.108	.03%				

NACA

CONFIDENTIAL

TABLE 43

[$\Delta = 30^\circ$, $b_{n_0} = 10.0^\circ$, $a = 0^\circ$]

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE					
		Bach Number						Bach Number					
		0.60	0.80	0.95	0.99	0.995	0.996	0.60	0.80	0.95	0.99	0.995	0.996
A 1	2.0	.031	.108	.129	.160	.194							
6	6.0	-.004	-.095	-.031	-.003	.036							
5	15.0	-.163	-.141	-.126	-.097	-.068							
4	25.0	-.203	-.095	-.136	-.273	-.135							
3	35.0	—	—	—	—	—							
2	45.0	—	—	—	—	—							
1	55.0	—	—	—	—	—							
6	67.5	—	—	—	—	—							
7	75.0	—	—	—	—	—							
8	77.5	—	—	—	—	—							
10	87.5	—	—	—	—	—							
11	90.0	—	—	—	—	—							
612	2.0	-.006	-.071	-.108	-.135	-.178							
15	6.0	-.136	-.096	-.076	-.065	-.009							
14	15.0	-.201	-.213	-.201	-.170	-.136							
15	27.5	-.263	-.307	-.307	-.276	-.260							
16	40.0	-.320	-.378	-.393	-.381	-.365							
17	50.0	-.334	-.417	-.400	-.393	-.359							
18	59.0	-.316	-.455	-.395	-.448	-.370							
19	67.5	-.294	-.533	-.510	-.618	-.565							
20	77.5	-.256	-.590	-.494	-.694	-.565							
21	86.0	-.099	-.077	-.108	-.187	-.305							
22	87.5	—	—	—	—	—							
C25	2.0	-.014	-.056	-.087	-.108	-.161							
24	6.0	-.157	-.127	-.108	-.067	-.034							
25	15.0	-.254	-.265	-.295	-.270	-.186							
26	27.5	-.374	-.411	-.459	-.444	-.397							
27	40.0	-.371	-.478	-.466	-.466	-.436							
28	50.0	-.356	-.473	-.571	-.509	-.493							
29	59.0	-.317	-.407	-.560	-.597	-.567							
30	67.5	—	—	—	—	—							
31	77.5	-.111	-.139	-.140	-.513	-.560							
32	88.0	.003	.064	.015	.035	.048							
33	87.5	—	—	—	—	—							
D24	2.0	-.071	-.006	.013	.099	.010							
35	6.0	-.274	-.250	-.269	-.293	-.213							
36	15.0	-.334	-.406	-.410	-.383	-.346							
37	27.5	-.394	-.507	-.576	-.538	-.491							
38	40.0	-.368	-.486	-.563	-.580	-.525							
39	50.0	-.388	-.436	-.545	-.554	-.526							
40	59.0	-.358	-.436	-.545	-.554	-.526							
41	67.5	-.261	-.400	-.505	-.550	-.500							
42	77.5	-.110	-.076	-.059	-.044	-.046							
43	84.2	.006	.089	.064	.070	.141							
E44	2.0	-.046	-.059	-.108	-.169	-.197	.028						
45	6.0	-.207	-.163	-.173	-.044	-.015							
46	15.0	-.296	-.303	-.287	-.254	-.280							
47	27.5	-.356	-.406	-.416	-.390	-.358							
48	40.0	-.369	-.407	-.546	-.548	-.447							
49	50.0	-.377	-.413	-.587	-.576	-.495							
50	59.0	-.343	-.413	-.517	-.517	-.478							
51	67.5	-.246	-.395	-.460	-.508	-.570	.076						
52	77.5	-.094	-.054	-.068	-.120	-.206	.319						
53	86.5	-.112	-.073	-.105	-.206	-.094	.204						
54	87.5	-.097	-.076	.118	-.034	-.063	.186						
F55	2.0	-.107	.011	.071	.130	.167	.189						
56	6.0	-.201	-.176	-.176	-.071	-.040	-.015						
57	15.0	-.315	-.316	-.265	-.265	-.234							
58	27.5	-.343	-.418	-.403	-.365	-.324							
59	40.0	-.340	-.440	-.578	-.595	-.514							
60	50.0	-.380	-.349	-.621	-.631	-.643							
61	58.0	-.319	-.400	-.560	-.570	-.676							
62	67.5	-.371	-.406	-.465	-.696	-.630							
63	86.5	-.180	-.130	-.173	-.173	-.235	-.338						
G65	2.0	-.158	-.031	.044	.120	.176	.190						
66	6.0	-.276	-.217	-.166	-.166	-.058	-.036						
67	15.0	-.336	-.341	-.314	-.278	-.236	-.204						
68	27.5	-.399	-.454	-.448	-.413	-.379	-.340						
69	40.0	-.405	-.500	-.590	-.560	-.517	-.475						
70	50.0	-.470	-.616	-.701	-.637	-.530	-.552						
71	58.0	-.431	-.550	-.674	-.629	-.504	-.544						
72	67.5	-.384	-.466	-.546	-.583	-.676	-.646						
73	77.5	-.249	-.473	-.400	-.583	-.626	-.610						
74	87.2	-.251	-.116	-.046	-.207	-.229	-.363						
75	96.8	.078	.092	.043	.056	.169	.200						
H76	2.0	-.190	-.109	.260	-.047	.180	.190						
77	6.0	-.297	-.303	.368	-.216	-.130	-.094						
78	15.0	-.319	-.314	.342	-.184	-.120	-.079						
79	27.5	-.317	-.376	.600	-.275	-.207	-.151						
80	40.0	-.329	-.539	.601	-.406	-.348	-.317						
81	50.0	-.411	-.508	.578	-.460	-.379	-.389						
82	59.0	-.360	-.448	.480	-.473	-.418	-.371						
83	67.5	-.311	-.423	.009	-.354	-.384	-.310						
84	86.5	-.107	-.087	.062	-.120	-.169	-.210						
85	24.2	.089	.091	.066	-.099	-.140	-.200						

CONFIDENTIAL



NACA RM No. L8A30a

TABLE 44

$$[\Lambda = 30^\circ, S_{\alpha_0} = 10.0^2, \alpha = 5^\circ]$$

		CONFIDENTIAL					
Tube	Per-cent chord	UPPER SURFACE					
		0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0	-0.318	-	-0.170	-0.109	-0.045	
2	6.0	-0.317	-	-0.264	-0.194	-0.041	
3	15.0	-0.297	-	-0.264	-0.222	-0.176	
4	27.5	-0.295	-	-0.302	-0.265	-0.201	
5	40.0	-	-	-	-	-	
6	50.0	-	-	-	-	-	
7	59.0	-	-	-	-	-	
8	67.5	-	-	-	-	-	
9	77.0	-	-	-	-	-	
10	87.5	-	-	-	-	-	
11	96.0	-	-	-	-	-	
612	2.0	-0.375	-0.297	-0.209	-0.146	-0.079	
13	6.0	-0.375	-0.352	-0.306	-0.258	-0.195	
15	15.0	-0.371	-0.366	-0.354	-0.310	-0.258	
17	27.5	-0.364	-0.341	-0.423	-0.383	-0.334	
18	40.0	-0.404	-0.439	-0.504	-0.472	-0.426	
19	50.0	-0.392	-0.509	-0.581	-0.476	-0.440	
20	52.5	-	-	-	-	-	
21	57.5	-0.287	-0.418	-0.496	-0.462	-0.427	
22	77.5	-0.214	-0.240	-0.268	-0.269	-0.269	
21	86.0	-0.066	-0.104	-0.195	-0.241	-0.212	
22	95.5	-	-	-	-	-	
623	2.0	-0.430	-0.446	-0.297	-0.172	-0.076	
4	6.0	-0.434	-0.462	-0.408	-0.371	-0.281	
25	15.0	-0.418	-0.474	-0.494	-0.466	-0.381	
26	27.5	-0.384	-0.395	-0.506	-0.447	-0.413	
27	40.0	-0.454	-0.644	-0.742	-0.583	-0.523	
28	50.0	-0.421	-0.618	-0.645	-0.589	-0.581	
29	59.0	-0.371	-0.565	-0.676	-0.647	-0.636	
30	67.5	-	-	-	-	-	
31	77.5	-0.148	-0.171	-0.276	-0.274	-0.277	
32	86.0	-0.015	-0.013	-0.020	-0.020	-0.020	
33	95.5	-0.067	-0.071	-0.079	-0.135	-0.135	
624	2.0	-0.508	-0.440	-0.337	-0.248	-0.149	
36	15.0	-0.488	-0.528	-0.477	-0.417	-0.307	
37	27.5	-0.459	-0.583	-0.571	-0.508	-0.467	
38	40.0	-0.473	-0.605	-0.661	-0.583	-0.543	
39	50.0	-0.437	-0.615	-0.659	-0.609	-0.573	
40	59.0	-0.371	-0.551	-0.618	-0.549	-0.505	
41	77.5	-0.155	-0.185	-0.268	-0.208	-0.163	
42	87.5	-0.007	-0.013	-0.027	-0.036	-0.040	
43	94.0	-0.069	-0.073	-0.080	-0.114	-0.117	
625	2.0	-0.561	-0.492	-0.380	-0.292	-0.140	-0.005
45	6.0	-0.512	-0.542	-0.446	-0.379	-0.292	
46	15.0	-0.482	-0.535	-0.433	-0.394	-0.311	
47	27.5	-0.408	-0.514	-0.582	-0.528	-0.454	
48	40.0	-0.424	-0.570	-0.701	-0.624	-0.547	
49	50.0	-0.446	-0.614	-0.717	-0.610	-0.540	
50	59.0	-0.417	-0.572	-0.676	-0.581	-0.527	
51	67.5	-0.158	-0.186	-0.261	-0.207	-0.153	
52	77.5	-0.041	-0.115	-0.266	-0.208	-0.161	
53	86.5	-0.016	-0.016	-0.024	-0.024	-0.024	
54	95.5	-0.068	-0.078	-0.103	-0.163	-0.154	
626	2.0	-0.581	-0.492	-0.380	-0.292	-0.140	-0.005
55	6.0	-0.532	-0.562	-0.464	-0.399	-0.302	
56	15.0	-0.502	-0.555	-0.483	-0.439	-0.351	
57	27.5	-0.427	-0.525	-0.610	-0.556	-0.481	
58	40.0	-0.442	-0.603	-0.727	-0.626	-0.559	
59	50.0	-0.418	-0.589	-0.727	-0.611	-0.559	
60	59.0	-0.408	-0.674	-0.767	-0.682	-0.605	
61	67.5	-0.160	-0.181	-0.261	-0.208	-0.165	
62	77.5	-0.045	-0.115	-0.266	-0.208	-0.165	
63	86.5	-0.016	-0.016	-0.024	-0.024	-0.024	
64	95.5	-0.068	-0.078	-0.103	-0.163	-0.154	
627	2.0	-0.537	-0.486	-0.353	-0.282	-0.124	-0.018
55	6.0	-0.540	-0.511	-0.435	-0.373	-0.282	
57	15.0	-0.477	-0.525	-0.489	-0.429	-0.348	
58	27.5	-0.407	-0.518	-0.606	-0.540	-0.464	
59	40.0	-0.422	-0.603	-0.727	-0.626	-0.559	
60	50.0	-0.408	-0.674	-0.767	-0.682	-0.605	
61	59.0	-0.160	-0.181	-0.261	-0.208	-0.165	
62	77.5	-0.045	-0.115	-0.266	-0.208	-0.165	
63	86.5	-0.016	-0.016	-0.024	-0.024	-0.024	
64	95.5	-0.068	-0.078	-0.103	-0.163	-0.154	
628	2.0	-0.579	-0.508	-0.413	-0.375	-0.126	-0.046
65	6.0	-0.612	-0.599	-0.505	-0.439	-0.348	
67	15.0	-0.538	-0.590	-0.518	-0.476	-0.393	
68	27.5	-0.510	-0.605	-0.626	-0.500	-0.447	
69	40.0	-0.518	-0.709	-0.727	-0.611	-0.559	
70	50.0	-0.508	-0.784	-0.787	-0.698	-0.639	
71	59.0	-0.160	-0.181	-0.261	-0.208	-0.165	
72	77.5	-0.045	-0.115	-0.266	-0.208	-0.165	
73	87.5	-0.015	-0.015	-0.024	-0.024	-0.024	
74	97.5	-0.140	-0.150	-0.186	-0.177	-0.147	
75	96.8	-0.067	-0.120	-0.180	-0.204	-0.160	
629	2.0	-0.693	-0.607	-0.496	-0.358	-0.091	-0.076
77	6.0	-0.540	-0.703	-0.610	-0.505	-0.400	
79	15.0	-0.603	-0.640	-0.546	-0.476	-0.373	
79	27.5	-0.577	-0.598	-0.546	-0.494	-0.385	
80	40.0	-0.563	-0.677	-0.717	-0.644	-0.566	
81	50.0	-0.553	-0.729	-0.767	-0.698	-0.620	
82	59.0	-0.160	-0.181	-0.261	-0.208	-0.165	
83	67.5	-0.015	-0.015	-0.024	-0.024	-0.024	
84	77.5	-0.140	-0.150	-0.186	-0.177	-0.147	
85	87.5	-0.067	-0.227	-0.306	-0.274	-0.191	
86	96.3	-0.075	-0.097	-0.094	-0.125	-0.101	
86	94.2	.008	.009	.010	.014	.007	.003

CONFIDENTIAL

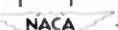


TABLE A5

[$A = 30^\circ$, $S_{\infty} = 10.0^\circ$, $\alpha = 4^\circ$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE						
		cent chord	Mach Number					cent chord	Mach Number					
			0.60	0.80	0.85	0.89	0.925		0.60	0.80	0.85	0.89	0.925	0.96
1	2.5	-0.735	-0.638	-0.535	-0.440	-0.345								
2	6.5	-0.567	-0.498	-0.428	-0.351	-0.270								
3	15.5	-0.430	-0.346	-0.268	-0.198	-0.109								
4	24.5	-0.392	-0.348	-0.268	-0.198	-0.111								
5	30.0	-	-	-	-	-								
6	40.0	-	-	-	-	-								
7	50.0	-	-	-	-	-								
8	67.5	-	-	-	-	-								
9	77.5	-	-	-	-	-								
10	87.5	-	-	-	-	-								
11	94.5	-	-	-	-	-								
12	2.5	-0.66	-0.570	-0.469	-0.351	-0.243								
13	6.5	-0.500	-0.445	-0.387	-0.302	-0.214								
14	15.5	-0.388	-0.354	-0.280	-0.205	-0.131								
15	27.5	-0.331	-0.378	-0.344	-0.293	-0.211								
16	45.0	-0.277	-0.317	-0.282	-0.236	-0.177								
17	50.5	-0.344	-0.387	-0.358	-0.302	-0.236								
18	59.5	-0.400	-0.438	-0.408	-0.351	-0.282								
19	67.5	-0.317	-0.357	-0.329	-0.270	-0.203								
20	77.5	-0.386	-0.421	-0.393	-0.334	-0.260								
21	86.5	-0.400	-0.437	-0.408	-0.351	-0.282								
22	95.5	-	-	-	-	-								
23	2.0	-0.942	-0.831	-0.631	-0.404	-0.406								
24	6.0	-0.716	-0.760	-0.669	-0.505	-0.401								
25	15.0	-0.576	-0.623	-0.587	-0.492	-0.451								
26	27.5	-0.377	-0.568	-0.548	-0.494	-0.420								
27	40.0	-0.308	-0.578	-0.549	-0.495	-0.420								
28	50.0	-0.384	-0.578	-0.550	-0.496	-0.420								
29	59.5	-0.450	-0.625	-0.596	-0.537	-0.459								
30	67.5	-0.317	-0.507	-0.479	-0.420	-0.342								
31	77.5	-0.386	-0.516	-0.517	-0.470	-0.403								
32	86.5	-0.380	-0.508	-0.501	-0.454	-0.384								
33	94.5	-0.07	.007	.011	.007	.004								
34	2.0	-1.045	-1.031	-0.711	-0.562	-0.477								
35	6.0	-0.880	-0.870	-0.669	-0.501	-0.401								
36	15.0	-0.640	-0.772	-0.711	-0.564	-0.464								
37	27.5	-0.588	-0.683	-0.603	-0.504	-0.404								
38	40.0	-0.487	-0.643	-0.589	-0.503	-0.404								
39	50.0	-0.394	-0.690	-0.603	-0.506	-0.407								
40	59.5	-0.277	-0.696	-0.603	-0.512	-0.411								
41	77.5	-0.385	-0.728	-0.630	-0.539	-0.439								
42	86.5	-0.05	.008	.018	.011	.006								
43	94.5	-0.07	.008	.011	.006	.004								
44	2.0	-1.175	-1.031	-0.777	-0.586	-0.440	-0.395							
45	6.0	-0.908	-1.010	-0.769	-0.611	-0.497	-0.428							
46	15.0	-0.684	-0.820	-0.669	-0.570	-0.469	-0.407							
47	27.5	-0.588	-0.807	-0.765	-0.648	-0.573	-0.496							
48	40.0	-0.488	-0.867	-0.768	-0.646	-0.565	-0.497							
49	50.0	-0.399	-0.895	-0.810	-0.715	-0.677	-0.618							
50	59.5	-0.291	-0.908	-0.810	-0.717	-0.680	-0.640							
51	77.5	-0.386	-0.909	-0.812	-0.718	-0.681	-0.642							
52	86.5	-0.105	-0.105	-0.118	-0.116	-0.105	-0.098							
53	94.5	-0.07	.015	.011	.007	.004								
54	2.0	-0.068	-0.061	-0.059	-0.058	-0.055	-0.047							
55	6.0	-0.255	-0.168	-0.081	-0.040	-0.026	-0.017							
56	15.0	-0.179	-0.120	-0.078	-0.039	-0.021	-0.015							
57	27.5	-0.077	-0.068	-0.051	-0.030	-0.017	-0.012							
58	40.0	-0.068	-0.057	-0.048	-0.030	-0.017	-0.012							
59	50.0	-0.068	-0.057	-0.048	-0.030	-0.017	-0.012							
60	59.5	-0.068	-0.057	-0.048	-0.030	-0.017	-0.012							
61	77.5	-0.068	-0.057	-0.048	-0.030	-0.017	-0.012							
62	86.5	-0.068	-0.057	-0.048	-0.030	-0.017	-0.012							
63	94.5	-0.068	-0.057	-0.048	-0.030	-0.017	-0.012							
64	2.0	-0.147	-1.141	-0.884	-0.682	-0.501	-0.343							
65	6.0	-0.099	-1.150	-0.896	-0.700	-0.605	-0.465							
66	15.0	-0.086	-1.035	-0.801	-0.650	-0.548	-0.427							
67	27.5	-0.087	-1.027	-0.803	-0.652	-0.549	-0.428							
68	40.0	-0.088	-0.918	-0.786	-0.648	-0.550	-0.430							
69	50.0	-0.087	-0.905	-0.784	-0.647	-0.547	-0.428							
70	59.5	-0.087	-0.905	-0.784	-0.647	-0.547	-0.428							
71	77.5	-0.087	-0.905	-0.784	-0.647	-0.547	-0.428							
72	86.5	-0.087	-0.905	-0.784	-0.647	-0.547	-0.428							
73	94.5	-0.087	-0.905	-0.784	-0.647	-0.547	-0.428							
74	2.0	-0.078	-0.066	-0.058	-0.051	-0.048	-0.040							
75	6.0	-0.019	.019	.007	.004	.001	.001							
76	2.5	-1.209	-1.203	-0.815	-0.680	-0.511	-0.376							
77	6.0	-0.899	-1.197	-0.869	-0.700	-0.605	-0.539							
78	15.0	-0.587	-1.063	-0.760	-0.606	-0.571	-0.521							
79	27.5	-0.335	-1.016	-0.742	-0.590	-0.577	-0.514							
80	40.0	-0.211	-0.950	-0.705	-0.653	-0.621	-0.560							
81	50.0	-0.189	-0.904	-0.648	-0.601	-0.579	-0.520							
82	59.5	-0.189	-0.904	-0.648	-0.601	-0.579	-0.520							
83	77.5	-0.207	-0.904	-0.648	-0.601	-0.579	-0.520							
84	86.5	-0.068	-0.063	-0.053	-0.041	-0.036	-0.020							
85	94.5	-0.041	-0.052	-0.040	-0.029	-0.020	-0.010							

NACA

TABLE A6

[$A = 30^\circ$, $b_{n_0} = 10.0^\circ$, $\alpha = 7^\circ$]

CONFIDENTIAL

Tube No.	Per- cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.90	0.925	0.95	0.60	0.80	0.85	0.90	0.925	0.95
4 1	2.0	-1.946	-1.800	-1.133	-0.973	-0.800							
4 2	8.0	-0.914	-1.104	-1.019	-0.991	-0.870							
4 3	15.0	-0.664	-0.841	-0.833	-0.806	-0.786							
4 4	27.5	-0.566	-0.636	-0.606	-0.537	-0.506							
4 5	40.0	-	-	-	-	-							
4 6	50.0	-	-	-	-	-							
4 7	59.0	-	-	-	-	-							
4 8	67.5	-	-	-	-	-							
4 9	77.5	-	-	-	-	-							
4 10	87.5	-	-	-	-	-							
4 11	96.0	-	-	-	-	-							
B12	2.0	-2.006	-1.423	-1.109	-0.991	-0.870							
13	8.0	-1.118	-1.204	-1.112	-0.991	-0.870							
14	15.0	-0.753	-1.010	-0.986	-0.949	-0.720							
15	27.5	-0.539	-0.768	-0.699	-0.616	-0.567							
16	40.0	-0.518	-0.800	-0.762	-0.677	-0.623							
17	50.0	-	-	-	-	-							
18	59.0	-	-	-	-	-							
19	67.5	-	-	-	-	-							
20	77.5	-	-	-	-	-							
21	86.0	-0.105	-0.402	-0.376	-0.311	-0.253							
22	95.3	-	-	-	-	-							
C23	2.0	-0.110	-1.494	-1.100	-0.974	-0.796							
24	8.0	-1.967	-1.389	-1.069	-0.941	-0.803							
25	15.0	-0.875	-1.249	-1.071	-0.961	-0.811							
26	27.5	-0.747	-1.047	-0.998	-0.844	-0.767							
27	40.0	-0.621	-0.927	-0.813	-0.760	-0.717							
28	50.0	-0.533	-0.901	-0.817	-0.796	-0.743							
29	59.0	-0.433	-0.723	-0.676	-0.613	-0.537							
30	67.5	-	-	-	-	-							
31	77.5	-0.175	-0.205	-0.192	-0.096	-0.070							
32	88.0	-0.057	-0.112	-0.103	-0.053	-0.043							
33	95.3	-	-0.016	-0.073	-0.109	-0.265	-0.516						
H34	2.0	-1.802	-1.466	-1.173	-0.979	-0.791							
35	12.0	-0.971	-1.140	-1.158	-0.994	-0.897							
36	27.5	-0.700	-1.029	-1.126	-1.013	-0.911							
37	40.0	-0.606	-1.204	-1.079	-0.975	-0.933							
38	50.0	-0.508	-1.015	-1.077	-0.999	-0.906							
39	59.0	-0.410	-0.841	-0.846	-0.864	-0.841							
40	67.5	-0.367	-0.399	-0.383	-0.385	-0.380							
41	77.5	-0.159	-0.178	-0.171	-0.095	-0.073							
42	87.5	-0.047	-0.048	-0.047	-0.046	-0.046							
43	94.1	-0.006	-0.016	-0.008	-0.014	-0.017	-0.197						
H44	2.0	-1.802	-1.482	-1.168	-0.979	-0.814	-0.683						
45	6.0	-1.706	-1.441	-1.195	-1.030	-0.894	-0.729						
46	15.0	-0.119	-1.348	-1.137	-0.956	-0.873	-0.792						
47	27.5	-0.723	-1.293	-1.065	-0.947	-0.875	-0.767						
48	40.0	-0.620	-1.144	-1.079	-0.995	-0.878	-0.810						
49	50.0	-0.522	-1.158	-1.059	-0.995	-0.878	-0.806						
50	59.0	-0.424	-0.712	-0.696	-0.705	-0.696	-0.660						
51	67.5	-0.381	-0.399	-0.384	-0.382	-0.381	-0.361						
52	77.5	-0.196	-0.186	-0.180	-0.098	-0.076	-0.600						
53	88.0	-0.035	-0.019	-0.017	-0.015	-0.013	-0.154						
54	95.3	-0.008	-0.014	-0.008	-0.015	-0.013	-0.160	-0.510					
H55	2.0	-1.762	-1.487	-1.186	-0.946	-0.768	-0.645						
56	6.0	-1.695	-1.483	-1.087	-0.931	-0.860	-0.720						
57	15.0	-1.250	-1.185	-1.124	-0.919	-0.860	-0.785						
58	27.5	-0.766	-1.127	-1.083	-0.987	-0.897	-0.803						
59	40.0	-0.621	-0.909	-0.811	-0.816	-0.805	-0.785						
60	50.0	-0.528	-0.714	-0.685	-0.670	-0.611	-0.600						
61	59.0	-0.426	-0.650	-0.607	-0.567	-0.597	-0.606						
62	67.5	-0.370	-0.415	-0.378	-0.310	-0.310	-0.316						
63	86.5	-0.194	-0.248	-0.206	-0.185	-0.186	-0.201						
64	94.1	-0.073	-0.100	-0.020	-0.020	-0.027	-0.231	-0.731					
H65	2.0	-1.764	-1.486	-1.177	-1.084	-0.889	-0.602						
66	6.0	-1.439	-1.484	-1.260	-1.096	-0.897	-0.729						
67	15.0	-1.380	-1.485	-1.185	-1.001	-0.887	-0.763						
68	27.5	-0.925	-1.190	-1.070	-0.931	-0.817	-0.795						
69	40.0	-0.668	-0.795	-0.695	-0.615	-0.540	-0.640						
70	50.0	-0.537	-0.614	-0.774	-0.795	-0.748	-0.873						
71	59.0	-0.413	-0.515	-0.661	-0.716	-0.669	-0.805						
72	67.5	-0.367	-0.419	-0.446	-0.461	-0.451	-0.513						
73	77.5	-0.164	-0.134	-0.135	-0.065	-0.046	-0.053						
74	87.2	-0.135	-0.162	-0.196	-0.162	-0.166	-0.194						
75	96.8	-0.073	-0.100	-0.120	-0.100	-0.107	-0.121						
H76	2.0	-1.766	-1.490	-1.189	-1.012	-0.871	-0.657						
77	6.0	-1.191	-0.893	-1.006	-0.915	-0.813	-0.735						
78	15.0	-0.916	-0.793	-0.901	-0.877	-0.797	-0.757						
79	27.5	-0.698	-0.707	-0.820	-0.889	-0.805	-0.755						
80	40.0	-0.475	-0.519	-0.649	-0.718	-0.607	-0.688						
81	50.0	-0.337	-0.420	-0.541	-0.649	-0.566	-0.689						
82	59.0	-0.215	-0.323	-0.463	-0.597	-0.509	-0.636						
83	67.5	-0.170	-0.194	-0.209	-0.431	-0.320	-0.463						
84	94.8	-0.158	-0.277	-0.305	-0.451	-0.371	-0.455						
85	94.2	-0.133	-0.295	-0.304	-0.475	-0.421	-0.490						

NACA

TABLE 47

[$\Lambda = 45^\circ$, $\delta_{\infty} = -4.4^\circ$, $\alpha = -2^\circ$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE					
		cent	Mach Number				cent	Mach Number				
			0.60	0.80	0.89	0.92		0.60	0.80	0.89	0.92	0.96
A 1	2.0	-	0.267	0.348	0.395	0.427	0.464	-	-	-	-	-
2	6.0	-0.047	-0.057	0.116	0.130	0.134	0.154	-	-	-	-	-
3	12.0	-0.008	-0.008	0.071	0.075	0.076	0.084	-	-	-	-	-
4	27.5	-0.019	-0.008	-0.003	-0.003	-0.018	-0.040	-	-	-	-	-
5	45.0	-	-	-	-	-	-	-	-	-	-	-
6	50.0	-	-	-	-	-	-	-	-	-	-	-
7	59.0	-	-	-	-	-	-	-	-	-	-	-
8	67.5	-	-	-	-	-	-	-	-	-	-	-
9	77.5	-	-	-	-	-	-	-	-	-	-	-
10	87.5	-	-	-	-	-	-	-	-	-	-	-
11	96.0	-	-	-	-	-	-	-	-	-	-	-
12	2.0	-	-	-	-	-	-	-	-	-	-	-
13	6.0	-	-	-	-	-	-	-	-	-	-	-
14	15.0	-0.023	-0.025	-0.026	-0.024	-0.021	-0.024	-	-	-	-	-
15	27.5	-0.077	-0.099	-0.087	-0.087	-0.066	-	-	-	-	-	-
16	40.0	-0.141	-0.153	-0.163	-0.158	-0.137	-	-	-	-	-	-
17	50.0	-0.128	-0.148	-0.169	-0.161	-0.136	-	-	-	-	-	-
18	59.0	-0.119	-0.136	-0.159	-0.150	-0.134	-	-	-	-	-	-
19	67.5	-0.112	-0.130	-0.149	-0.141	-0.126	-	-	-	-	-	-
20	77.5	-0.104	-0.122	-0.143	-0.135	-0.120	-	-	-	-	-	-
21	88.0	-	-	-	-	-	-	-	-	-	-	-
22	95.3	-	-	-	-	-	-	-	-	-	-	-
23	2.0	.031	.292	.305	.298	.276	.264	-	-	-	-	-
24	6.0	.067	.046	.059	.064	.075	.075	-	-	-	-	-
25	15.0	-.046	-.057	-.068	-.064	-.060	-.060	-	-	-	-	-
26	27.5	-.123	-.146	-.155	-.158	-.141	-.141	-	-	-	-	-
27	40.0	-.174	-.196	-.206	-.204	-.184	-.184	-	-	-	-	-
28	50.0	-.159	-.181	-.196	-.194	-.173	-.173	-	-	-	-	-
29	59.0	-.148	-.175	-.196	-.196	-.176	-.176	-	-	-	-	-
30	67.5	-.141	-.167	-.193	-.190	-.171	-.171	-	-	-	-	-
31	77.5	-.103	-.129	-.158	-.156	-.134	-.134	-	-	-	-	-
32	88.0	-.093	-.101	-.128	-.121	-.101	-.101	-	-	-	-	-
33	95.3	-.019	-.026	-.036	-.034	-.014	-.014	-	-	-	-	-
34	2.0	.115	.201	.218	.202	.186	.186	-	-	-	-	-
35	15.0	-.006	-.006	-.006	-.006	-.010	-.010	-	-	-	-	-
36	27.5	-.121	-.145	-.165	-.165	-.140	-.140	-	-	-	-	-
37	40.0	-.174	-.199	-.209	-.209	-.183	-.183	-	-	-	-	-
38	50.0	-.159	-.181	-.199	-.199	-.175	-.175	-	-	-	-	-
39	59.0	-.148	-.175	-.196	-.196	-.175	-.175	-	-	-	-	-
40	67.5	-.141	-.165	-.195	-.195	-.175	-.175	-	-	-	-	-
41	77.5	-.098	-.109	-.131	-.128	-.108	-.108	-	-	-	-	-
42	87.5	-.007	-.004	-.013	-.013	-.010	-.010	-	-	-	-	-
43	94.5	-.051	-.047	-.054	-.054	-.039	-.039	-	-	-	-	-
44	2.0	.067	.151	.161	.171	.174	.174	-	-	-	-	-
45	6.0	.086	.081	.088	.087	.077	.077	-	-	-	-	-
46	15.0	-.019	-.023	-.028	-.028	-.010	-.010	-	-	-	-	-
47	27.5	-.109	-.135	-.161	-.161	-.134	-.134	-	-	-	-	-
48	40.0	-.141	-.164	-.186	-.186	-.162	-.162	-	-	-	-	-
49	50.0	-.126	-.147	-.175	-.175	-.151	-.151	-	-	-	-	-
50	59.0	-.118	-.149	-.176	-.176	-.153	-.153	-	-	-	-	-
51	67.5	-.083	-.104	-.129	-.129	-.108	-.108	-	-	-	-	-
52	77.5	-.064	-.077	-.093	-.093	-.074	-.074	-	-	-	-	-
53	88.0	-.179	.161	.159	.157	.139	.139	-	-	-	-	-
54	95.3	-.099	.101	.101	.101	.120	.120	-	-	-	-	-
55	2.0	.084	.244	.259	.256	.201	.201	-	-	-	-	-
56	6.0	.104	.078	.064	.064	.059	.059	-	-	-	-	-
57	15.0	-.015	-.018	-.018	-.018	-.007	-.007	-	-	-	-	-
58	27.5	-.112	-.139	-.151	-.151	-.130	-.130	-	-	-	-	-
59	40.0	-.111	-.135	-.150	-.150	-.130	-.130	-	-	-	-	-
60	50.0	-.096	-.129	-.143	-.143	-.126	-.126	-	-	-	-	-
61	59.0	-.073	-.098	-.113	-.113	-.091	-.091	-	-	-	-	-
62	67.5	-.046	-.077	-.102	-.102	-.083	-.083	-	-	-	-	-
63	77.5	-.017	-.019	-.019	-.019	-.009	-.009	-	-	-	-	-
64	88.0	-.007	-.017	-.017	-.017	-.017	-.017	-	-	-	-	-
65	94.5	-.007	-.017	-.017	-.017	-.017	-.017	-	-	-	-	-
66	2.0	.107	.081	.080	.078	.073	.073	-	-	-	-	-
67	6.0	.137	.118	.107	.107	.103	.103	-	-	-	-	-
68	15.0	-.021	-.021	-.012	-.012	-.017	-.016	-	-	-	-	-
69	27.5	-.059	-.069	-.071	-.071	-.061	-.060	-	-	-	-	-
70	40.0	-.076	-.098	-.102	-.102	-.089	-.089	-	-	-	-	-
71	50.0	-.062	-.087	-.103	-.103	-.087	-.087	-	-	-	-	-
72	59.0	-.046	-.064	-.081	-.081	-.069	-.069	-	-	-	-	-
73	67.5	-.030	-.049	-.064	-.064	-.053	-.053	-	-	-	-	-
74	77.5	-.022	-.035	-.049	-.049	-.037	-.037	-	-	-	-	-
75	86.0	-.006	-.006	-.001	-.001	-.009	-.009	-	-	-	-	-
76	94.2	-.006	-.006	-.001	-.001	-.009	-.009	-	-	-	-	-
77	6.0	-.051	-.050	-.050	-.050	-.051	-.051	-	-	-	-	-
78	15.0	-.026	-.026	-.026	-.026	-.026	-.026	-	-	-	-	-
79	27.5	-.077	-.095	-.104	-.104	-.087	-.087	-	-	-	-	-
80	40.0	-.106	-.118	-.120	-.120	-.104	-.104	-	-	-	-	-
81	50.0	-.086	-.114	-.129	-.129	-.108	-.108	-	-	-	-	-
82	59.0	-.069	-.087	-.097	-.097	-.080	-.080	-	-	-	-	-
83	67.5	-.043	-.051	-.065	-.065	-.051	-.051	-	-	-	-	-
84	86.3	-.190	.115	.130	.144	.162	.166	-	-	-	-	-
85	94.2	-.006	.101	.116	.116	.106	.106	-	-	-	-	-

NACA

CONFIDENTIAL

TABLE 48

[$\Lambda = 45^\circ$, $\theta_{h_0} = -4.0^\circ$, $a = 2^\circ$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE					CONFIDENTIAL	
		cent	chord	Mach Number				cent	chord	Mach Number			
		0.60	0.80	0.89	0.965	0.96			0.60	0.80	0.89	0.965	0.96
A 1	2.0	-0.177	-0.199	-0.198	-0.069	-0.033		80	3.0	.013	.011	.013	.016
2	6.0	-0.184	-0.166	-0.142	-0.065	-0.039		81	4.0	.014	.003	.011	.016
3	12.0	-0.166	-0.166	-0.130	-0.073	-0.042		82	4.0	-.015	-.013	-.004	.003
4	27.5	-0.161	-0.158	-0.145	-.019	-.093		83	4.0	—	—	—	—
5	40.0	-0.161	-0.158	-0.145	-.019	-.093		84	4.5	—	—	—	—
6	50.0	—	—	—	—	—		85	5.0	—	—	—	—
7	59.0	—	—	—	—	—		86	7.5	—	—	—	—
8	67.5	—	—	—	—	—		87	6.0	—	—	—	—
10	77.5	—	—	—	—	—		88	4.0	—	—	—	—
11	87.5	—	—	—	—	—		89	4.0	—	—	—	—
11	90.0	—	—	—	—	—		90	54.5	—	—	—	—
912	2.0	—	—	—	—	—		91	64.5	—	—	—	—
13	6.0	—	—	—	—	—		92	72.5	—	—	—	—
14	12.0	-0.233	-0.203	-0.176	-.097	-.207		93	84.0	—	—	—	—
15	27.5	-0.244	-0.261	-0.229	-.205	-.142		94	94.0	—	—	—	—
16	40.0	-0.269	-0.269	-0.207	-0.201	-.240		95	3.0	.094	.094	.097	.097
17	50.0	-0.267	-0.261	-0.223	-.200	-.270		96	10.0	-.012	-.013	-.014	.006
18	59.0	-0.232	-0.261	-0.206	-.201	-.279		97	25.0	-.060	-.067	-.072	-.058
19	77.5	—	—	—	—	—		98	41.0	-.046	-.112	-.121	-.126
20	77.5	—	—	—	—	—		99	52.5	-.095	-.115	-.135	-.144
21	86.0	—	—	—	—	—		100	64.0	—	—	—	—
22	95.3	—	—	—	—	—		101	72.0	—	—	—	—
G13	2.0	-0.130	-0.203	-0.203	-.173	-.129		102	84.3	—	—	—	—
23	6.0	-0.269	-0.269	-0.269	-.201	-.160		103	94.5	—	—	—	—
24	12.0	-0.261	-0.261	-0.261	-.207	-.160		114	3.0	.099	.099	.114	.071
25	27.5	-0.261	-0.261	-0.261	-.207	-.160		115	10.0	-.009	-.023	-.016	-.019
26	40.0	-0.276	-0.276	-0.276	-.207	-.160		116	25.0	-.099	-.108	-.120	-.119
27	50.0	-0.267	-0.267	-0.267	-.207	-.160		117	41.0	-.105	-.130	-.156	-.139
28	59.0	-0.276	-0.276	-0.276	-.207	-.160		118	52.5	-.105	-.131	-.159	-.133
29	59.0	-0.267	-0.271	-0.271	-.207	-.160		119	64.0	-.081	-.101	-.125	-.134
30	87.5	-0.269	-0.275	-0.275	-.207	-.160		120	72.5	-.035	-.095	-.107	-.141
31	77.5	-0.261	-0.261	-0.261	-.207	-.160		121	84.5	-.017	-.012	-.005	-.060
32	86.0	-0.069	-0.069	-0.120	-.217	-.204		122	94.5	.060	.096	.041	-.019
33	95.5	-.005	-.013	-.023	-.015	-.101		123	3.0	-.117	-.105	-.084	.036
34	2.0	-0.336	-0.344	-0.304	-.069	-.215		124	10.0	-.016	.001	-.015	-.047
35	15.0	-0.290	-0.353	-0.372	-.306	-.111		125	25.0	-.069	-.090	-.109	-.133
36	27.5	-0.290	-0.344	-0.314	-.306	-.108		126	41.0	-.106	-.129	-.151	-.226
37	40.0	-0.304	-0.365	-0.365	-.311	-.091		127	52.5	-.098	-.129	-.140	-.213
38	50.0	-0.298	-0.340	-0.340	-.308	-.091		128	64.0	-.093	-.105	-.101	-.167
39	59.0	-0.290	-0.333	-0.333	-.317	-.091		129	72.5	-.035	-.095	-.101	-.141
40	77.5	-0.289	-0.333	-0.333	-.317	-.091		130	84.5	-.017	-.012	-.017	-.077
41	77.5	-0.289	-0.333	-0.333	-.317	-.091		131	94.5	-.076	-.079	-.086	.069
42	87.5	-0.121	-.013	-.004	-.004	-.004		132	3.0	-.141	-.150	-.141	.099
43	94.5	-.048	-.050	-.055	-.054	-.054		133	10.0	.011	-.003	-.015	-.056
44	2.0	-0.340	-0.395	-0.446	-.394	-.307		134	25.0	-.067	-.077	-.090	-.105
45	6.0	-0.307	-0.365	-0.415	-.355	-.331		135	41.0	-.046	-.111	-.113	-.133
46	15.0	-0.303	-0.363	-0.413	-.359	-.313		136	52.5	-.107	-.124	-.132	-.175
47	27.5	-0.303	-0.334	-0.384	-.349	-.310		137	64.0	-.108	-.146	-.140	-.164
48	40.0	-0.304	-0.365	-0.414	-.355	-.311		138	72.5	-.087	-.103	-.126	-.184
49	50.0	-0.311	-0.370	-0.410	-.363	-.316		139	84.0	-.008	-.008	-.022	.010
50	59.0	-0.304	-0.360	-0.408	-.359	-.314		140	94.0	.053	.094	.099	.068
51	67.5	-0.287	-0.347	-0.413	-.341	-.312		141	3.0	-.099	-.099	-.108	.103
52	77.5	-0.284	-0.344	-0.413	-.341	-.312		142	10.0	.011	-.013	-.013	-.021
53	86.8	-0.182	-0.182	-.026	-.015	-.027		143	25.0	-.059	-.073	-.081	-.089
54	95.5	-.108	-.113	-.119	-.118	-.077		144	41.0	-.116	-.121	-.128	-.135
55	2.0	-0.341	-0.411	-0.460	-.447	-.397		145	52.5	-.130	-.146	-.145	-.146
56	6.0	-0.304	-0.364	-0.415	-.359	-.310		146	64.0	-.096	-.103	-.104	-.130
57	15.0	-0.296	-0.333	-0.385	-.340	-.310		147	72.5	-.105	-.120	-.121	-.177
58	27.5	-0.291	-0.333	-0.399	-.349	-.317		148	84.0	-.105	-.123	-.128	-.185
59	40.0	-0.291	-0.333	-0.404	-.354	-.322		149	94.0	—	—	—	—
60	50.0	-0.288	-0.337	-0.404	-.354	-.323		150	3.0	.097	.107	.119	.143
61	59.0	-0.287	-0.341	-0.404	-.357	-.325		151	10.0	-.049	-.075	-.086	-.124
62	67.5	-0.287	-0.344	-0.406	-.357	-.326		152	25.0	-.111	-.113	-.120	-.177
63	77.5	-0.287	-0.344	-0.406	-.357	-.326		153	41.0	—	—	—	—
64	87.5	—	—	—	—	—		154	52.5	-.114	-.127	-.121	-.149
65	95.5	—	—	—	—	—		155	64.0	-.073	-.089	-.097	-.109
66	2.0	-0.359	-0.459	-0.513	-.460	-.384		156	72.5	-.067	-.062	-.064	-.088
67	15.0	-0.305	-0.376	-0.436	-.409	-.341		157	84.0	-.077	-.093	-.109	-.140
68	27.5	-0.307	-0.351	-0.421	-.410	-.348		158	94.0	—	—	—	—
69	40.0	-0.307	-0.351	-0.421	-.410	-.348		159	3.0	-.131	.146	.147	.147
70	50.0	-0.304	-0.349	-0.419	-.407	-.346		160	10.0	-.049	-.075	-.086	-.124
71	59.0	-0.307	-0.354	-0.424	-.417	-.350		161	25.0	-.096	-.104	-.104	-.130
72	67.5	-.001	-.006	-.007	.006	.048		162	41.0	-.136	-.149	-.147	-.187
73	77.5	.135	.140	.143	.144	.096		163	52.5	-.116	-.126	-.131	-.178
74	87.5	—	—	—	—	—		164	64.0	-.103	-.098	-.076	-.091
75	95.5	.115	.120	.127	.139	.167		165	72.5	—	—	—	—
76	2.0	-0.350	-0.450	-0.510	-.448	-.384		166	84.0	—	—	—	—
77	6.0	-0.313	-0.374	-0.434	-.409	-.341		167	94.0	—	—	—	—
78	15.0	-0.303	-0.366	-0.426	-.409	-.343		168	3.0	.087	.107	.119	.143
79	27.5	-0.307	-0.351	-0.422	-.410	-.349		169	10.0	-.049	-.075	-.086	-.124
80	40.0	-0.304	-0.354	-0.424	-.410	-.348		170	25.0	-.111	-.113	-.120	-.177
81	50.0	-0.307	-0.357	-0.427	-.413	-.351		171	41.0	—	—	—	—
82	59.0	-0.310	-0.364	-0.430	-.417	-.353		172	52.5	-.114	-.127	-.121	-.170
83	67.5	-0.310	-0.364	-0.430	-.417	-.353		173	64.0	-.077	-.089	-.097	-.116
84	77.5	-.001	-.006	-.007	.006	.048		174	72.5	-.067	-.062	-.064	-.088
85	87.5	.096	.096	.096	.075	.039		175	84.0	.077	.093	.110	.143
86	95.5	.109	.114	.116	.107	.134		176	3.0	—	—	—	—
87	94.2	.108	.119	.117	—	—		177	10.0	—	—	—	—

TABLE 4a

 $[A = 45^\circ, \delta_{\infty} = -0.4^\circ, \alpha = 7^\circ]$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE					LOWER SURFACE				
		Mech Number					Mech Number				
		0.60	0.80	0.89	0.925	0.96	0.60	0.80	0.89	0.925	0.96
A 1	2.0	-1.191	-1.198	-0.998	-0.877	-0.765	86	5.0	0.407	0.401	0.414
2	-0.60	-1.00	-0.540	-0.215	-0.081		87	10.0	.166	.158	.155
3	15.0	-0.14	-0.14	-0.14	-0.14	-0.14	88	10.0	.175	.161	.157
4	27.5	-0.16	-0.16	-0.16	-0.16	-0.16	89	41.0	--	--	--
5	40.0	--	--	--	--	--	90	64.5	--	--	--
6	50.0	--	--	--	--	--	91	64.5	--	--	--
7	56.0	--	--	--	--	--	92	72.5	--	--	--
8	67.5	--	--	--	--	--	93	64.0	--	--	--
9	77.5	--	--	--	--	--	94	64.0	--	--	--
10	87.5	--	--	--	--	--					
11	96.0	--	--	--	--	--					
B12	2.0	--	--	--	--	--					
13	6.0	--	--	--	--	--					
14	15.0	-0.11	-0.731	-0.487	-0.451	-0.413					
15	27.5	-0.16	-0.16	-0.16	-0.16	-0.16					
16	40.0	-0.08	-0.16	-0.16	-0.16	-0.16					
17	50.0	-0.16	-0.16	-0.16	-0.16	-0.16					
18	56.0	-0.16	-0.16	-0.16	-0.16	-0.16					
19	67.5	-0.16	-0.16	-0.16	-0.16	-0.16					
20	77.5	-0.16	-0.16	-0.16	-0.16	-0.16					
21	87.5	-0.08	-0.16	-0.16	-0.16	-0.16					
22	95.3	-0.16	-0.16	-0.16	-0.16	-0.16					
C23	2.0	-1.109	-1.420	-1.198	-1.051	-0.770					
24	6.0	-0.076	-0.135	-0.129	-0.097	-0.01					
25	15.0	-0.16	-0.16	-0.16	-0.16	-0.16					
26	27.5	-0.16	-0.16	-0.16	-0.16	-0.16					
27	40.0	-0.16	-0.16	-0.16	-0.16	-0.16					
28	50.0	-0.16	-0.16	-0.16	-0.16	-0.16					
29	56.0	-0.16	-0.16	-0.16	-0.16	-0.16					
30	67.5	-0.16	-0.16	-0.16	-0.16	-0.16					
31	77.5	-0.16	-0.16	-0.16	-0.16	-0.16					
32	86.0	-0.118	-0.139	-0.279	-0.419	-0.427					
33	95.5	-0.150	-0.150	-0.150	-0.150	-0.150					
D34	2.0	-1.208	-1.451	-1.267	-1.175	-0.997					
35	15.0	-0.747	-0.800	-0.904	-0.917	-0.995					
36	27.5	-0.16	-0.16	-0.16	-0.16	-0.16					
37	40.0	-0.16	-0.16	-0.16	-0.16	-0.16					
38	50.0	-0.16	-0.16	-0.16	-0.16	-0.16					
39	56.0	-0.16	-0.16	-0.16	-0.16	-0.16					
40	67.5	-0.16	-0.16	-0.16	-0.16	-0.16					
41	77.5	-0.16	-0.16	-0.16	-0.16	-0.16					
42	87.5	-0.16	-0.16	-0.16	-0.16	-0.16					
43	94.2	-0.006	-0.014	-0.048	-0.102	-0.166					
E44	2.0	-1.104	-1.297	--	-1.129	-1.077					
45	6.0	-0.076	-0.160	-1.287	-1.165	-1.055					
46	15.0	-0.16	-0.16	-1.164	-1.051	-0.977					
47	27.5	-0.16	-0.16	-0.16	-0.16	-0.16					
48	40.0	-0.16	-0.16	-0.16	-0.16	-0.16					
49	50.0	-0.16	-0.16	-0.16	-0.16	-0.16					
50	56.0	-0.16	-0.16	-0.16	-0.16	-0.16					
51	67.5	-0.16	-0.16	-0.16	-0.16	-0.16					
52	77.5	-0.16	-0.16	-0.16	-0.16	-0.16					
53	86.5	-0.08	-0.08	-0.08	-0.205	-0.284					
54	95.5	.048	.003	.003	.006	.163					
F45	2.0	-1.104	-1.297	--	-1.129	-1.077					
55	6.0	-0.076	-0.160	-1.287	-1.165	-1.055					
56	15.0	-0.16	-0.16	-1.164	-1.051	-0.977					
57	27.5	-0.16	-0.16	-0.16	-0.16	-0.16					
58	40.0	-0.16	-0.16	-0.16	-0.16	-0.16					
59	50.0	-0.16	-0.16	-0.16	-0.16	-0.16					
60	56.0	-0.16	-0.16	-0.16	-0.16	-0.16					
61	67.5	-0.16	-0.16	-0.16	-0.16	-0.16					
62	77.5	-0.16	-0.16	-0.16	-0.16	-0.16					
63	86.5	-0.08	-0.08	-0.08	-0.205	-0.284					
64	94.2	--	--	--	--	--					
G46	2.0	-1.104	-1.297	--	-1.129	-1.077					
65	6.0	-0.076	-0.160	-1.287	-1.165	-1.055					
66	15.0	-0.16	-0.16	-1.164	-1.051	-0.977					
67	27.5	-0.16	-0.16	-0.16	-0.16	-0.16					
68	40.0	-0.16	-0.16	-0.16	-0.16	-0.16					
69	50.0	-0.16	-0.16	-0.16	-0.16	-0.16					
70	56.0	-0.16	-0.16	-0.16	-0.16	-0.16					
71	67.5	-0.16	-0.16	-0.16	-0.16	-0.16					
72	77.5	-0.16	-0.16	-0.16	-0.16	-0.16					
73	87.5	-0.16	-0.16	-0.16	-0.16	-0.16					
74	97.2	--	--	--	--	--					
75	96.8	.066	.066	.066	.066	.017					
H76	2.0	-0.811	-0.898	-1.199	-1.120	-1.117					
77	6.0	-0.811	-0.898	-1.169	-1.120	-1.098					
78	15.0	-0.754	-0.731	-1.039	-1.098	-0.989					
79	27.5	-0.536	-0.503	-0.793	-0.895	-0.861					
80	40.0	-0.349	-0.375	-0.518	-0.660	-0.669					
81	50.0	-0.274	-0.318	-0.498	-0.690	-0.763					
82	56.0	-0.158	-0.196	-0.301	-0.498	-0.660					
83	67.5	-0.105	-0.144	-0.268	-0.464	-0.630					
84	88.3	-0.019	-0.020	-0.027	-0.043	-0.071					
85	94.2	.006	.006	.006	.006	.007					
I77	2.0	-0.603	-0.699	-1.029	-1.099	-1.071					
78	6.0	-0.603	-0.699	-1.029	-1.099	-1.071					
79	15.0	-0.549	-0.779	-1.011	-1.099	-1.046					
80	27.5	-0.334	-0.501	-0.793	-1.011	-1.046					
81	40.0	-0.201	-0.311	-0.513	-0.793	-1.011					
82	50.0	-0.146	-0.201	-0.361	-0.660	-0.971					
83	67.5	-0.095	-0.146	-0.268	-0.464	-0.730					
84	88.3	-0.019	-0.020	-0.027	-0.043	-0.071					
85	94.2	.006	.006	.006	.006	.007					

CONFIDENTIAL

NACA

TABLE 50

 $\left[\Delta = 45^\circ, \theta_{\infty} = 10.0^\circ, \alpha = -2^\circ \right]$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE					LOWER SURFACE					
		Mach Number					Mach Number					
		0.60	0.80	0.89	0.905	0.96		0.60	0.80	0.89	0.905	0.96
A 1	2.0											
2	6.0	.025	.025	.025	.025	.025						
3	15.0	.107	.116	.132	.150							
4	27.5	.019	.011	.004	.005							
5	37.0	-.009	.002	.017	.039							
6	50.0											
7	59.0											
8	67.5											
9	77.5											
10	87.5											
11	96.0											
612	2.0											
13	6.0											
14	15.0	-.006	-.023	-.013	-.002							
15	27.5	-.100	-.077	-.046	-.005							
16	40.0	-.156	-.145	-.158	-.140							
17	50.0	-.174	-.140	-.106	-.115							
18	59.0	-.160	-.171	-.162	-.145							
19	67.5	-.150	-.140	-.130	-.125							
20	77.5	-.140	-.130	-.120	-.115							
21	86.0	-.140	-.130	-.120	-.115							
22	95.5	-.140	-.130	-.120	-.115							
613	2.0											
23	6.0	.066	.063	.066	.078							
24	15.0	-.076	-.067	-.061	-.049							
25	27.5	-.159	-.154	-.152	-.136							
26	40.0	-.202	-.182	-.231	-.229							
27	50.0	-.211	-.200	-.202	-.208							
28	59.0	-.219	-.206	-.200	-.205							
29	67.5	-.169	-.162	-.163	-.162							
31	77.5	-.160	-.150	-.140	-.140							
32	86.0	-.044	-.077	-.103	-.172							
33	95.5	-.021	-.018	-.042	-.109							
614	2.0											
35	15.0	-.069	-.066	-.066	-.055							
36	27.5	-.148	-.178	-.199	-.196							
37	40.0	-.211	-.253	-.293	-.307							
38	50.0	-.220	-.225	-.217	-.211							
39	59.0	-.146	-.143	-.143	-.147							
40	67.5	-.166	-.173	-.173	-.160							
41	77.5	-.160	-.162	-.162	-.166							
42	86.0	-.036	-.025	-.006	-.015							
43	94.5	-.047	-.044	-.051	-.030							
F44	2.0	0.024	.021	.020	.026	.023	.023					
45	6.0	-.016	-.024	-.024	-.024	.024						
46	15.0	-.074	-.151	-.077	-.067	-.107						
47	27.5	-.147	-.156	-.167	-.176	-.111						
48	40.0	-.208	-.220	-.217	-.201	-.205						
49	50.0	-.212	-.210	-.204	-.207	-.203						
50	59.0	-.199	-.200	-.202	-.207	-.209						
51	67.5	-.169	-.176	-.176	-.174	-.166						
52	77.5	-.160	-.169	-.176	-.174	-.166						
53	86.5	-.051	-.053	-.075	-.062	-.109						
54	95.5	-.059	-.059	-.075	-.076	-.073						
F45	2.0	.100	.232	.246	.255	.243						
56	6.0	-.036	.046	.069	.075	.056						
57	15.0	-.064	-.079	-.077	-.076	-.106						
58	27.5	-.159	-.166	-.167	-.167	-.202						
59	40.0	-.231	-.239	-.249	-.247	-.277						
60	50.0	-.231	-.254	-.264	-.265	-.278						
61	59.0	-.234	-.259	-.264	-.265	-.280						
62	67.5	-.233	-.260	-.277	-.292	-.224						
63	86.5	-.263	-.263	-.267	-.277	-.283						
64	94.5	-.263	-.263	-.267	-.277	-.283						
65	2.0	.178	.281	.286	.283	.269						
66	6.0	-.017	.041	.056	.070	.079						
67	15.0	-.090	-.058	-.058	-.078	-.070						
68	27.5	-.166	-.175	-.165	-.186	-.173						
69	40.0	-.231	-.243	-.247	-.247	-.276						
70	50.0	-.231	-.256	-.264	-.263	-.286						
71	59.0	-.237	-.276	-.296	-.318	-.323						
72	67.5	-.240	-.265	-.287	-.309	-.324						
73	77.5	-.263	-.263	-.287	-.307	-.323						
74	87.2	-.058	-.058	-.058	-.058	-.059						
75	96.8	-.080	-.059	-.083	-.076	-.059						
F76	2.0	.029	.100	.117	.144	.197						
77	6.0	-.046	-.049	-.052	-.047	-.037						
78	15.0	-.120	-.139	-.163	-.162	-.150						
79	27.5	-.179	-.210	-.251	-.265	-.267						
80	40.0	-.281	-.297	-.304	-.347	-.366						
81	50.0	-.288	-.297	-.297	-.308	-.364						
82	59.0	-.294	-.294	-.294	-.304	-.364						
83	67.5	-.294	-.294	-.294	-.304	-.364						
84	86.5	-.294	-.294	-.294	-.304	-.364						
85	94.2	.018	.010	.010	.007	.003						

CONFIDENTIAL



TABLE 51

$$\Delta = 45^\circ, S_{\text{ch}} = 10.0^\circ, \alpha = 5^\circ$$

CONFIDENTIAL

Tube	for- cent chord	UPPER SURFACE					LOWER SURFACE				
		Mach Number					Mach Number				
		0.60	0.80	0.8x	0.90	0.9x	0.60	0.80	0.8x	0.90	0.9x
A 1	2.0	-0.182	-0.150	-0.101	0.006	-0.040					
2	6.0	-0.189	-0.172	-0.136	-0.116	-0.080					
4	15.0	-0.179	-0.172	-0.146	-0.126	-0.075					
5	27.5	-0.164	-0.161	-0.141	-0.130	-0.061					
6	50.0	--	--	--	--	--					
7	59.0	--	--	--	--	--					
8	67.5	--	--	--	--	--					
9	77.5	--	--	--	--	--					
10	87.5	--	--	--	--	--					
11	96.0	--	--	--	--	--					
612	2.0	--	--	--	--	--					
13	4.0	--	--	--	--	--					
14	15.0	-0.202	-0.193	-0.159	-0.139	-0.075					
15	27.5	-0.166	-0.164	-0.141	-0.130	-0.061					
16	45.0	-0.184	-0.176	-0.146	-0.126	-0.075					
17	50.0	-0.171	-0.164	-0.141	-0.130	-0.070					
18	59.0	-0.176	-0.166	-0.141	-0.130	-0.070					
19	67.5	--	--	--	--	--					
20	77.5	--	--	--	--	--					
21	86.0	--	--	--	--	--					
22	95.3	--	--	--	--	--					
C5	4.0	-0.203	-0.193	-0.159	-0.139	-0.075					
24	6.0	-0.173	-0.164	-0.141	-0.130	-0.075					
25	15.0	-0.199	-0.190	-0.156	-0.136	-0.076					
26	27.5	-0.160	-0.158	-0.141	-0.130	-0.071					
27	45.0	-0.184	-0.176	-0.142	-0.131	-0.071					
28	50.0	-0.171	-0.164	-0.141	-0.130	-0.070					
29	59.0	-0.176	-0.166	-0.141	-0.130	-0.070					
30	67.5	-0.182	-0.180	-0.146	-0.136	-0.070					
31	77.5	-0.149	-0.139	-0.106	-0.096	-0.056					
32	86.0	-0.055	-0.079	-0.123	-0.217	-0.290					
33	95.3	.007	-0.007	-0.059	-0.036	-0.043					
D8	2.0	-0.151	-0.152	-0.107	-0.065	-0.040					
35	15.0	-0.161	-0.156	-0.126	-0.106	-0.056					
36	47.5	-0.101	-0.092	-0.068	-0.056	-0.036					
37	40.0	-0.152	-0.150	-0.129	-0.109	-0.058					
38	50.0	-0.178	-0.176	-0.146	-0.136	-0.078					
39	59.0	-0.185	-0.186	-0.147	-0.137	-0.078					
40	67.5	-0.196	-0.198	-0.156	-0.146	-0.078					
41	77.5	-0.197	-0.198	-0.157	-0.147	-0.078					
42	86.0	-0.173	-0.174	-0.141	-0.131	-0.073					
43	94.2	-0.067	-0.048	-0.056	-0.055	-0.063					
F44	2.0	-0.152	-0.152	-0.107	-0.065	-0.040					
35	15.0	-0.161	-0.156	-0.126	-0.106	-0.056					
36	47.5	-0.101	-0.092	-0.068	-0.056	-0.036					
37	40.0	-0.152	-0.150	-0.129	-0.109	-0.058					
38	50.0	-0.178	-0.176	-0.146	-0.136	-0.078					
39	59.0	-0.185	-0.186	-0.147	-0.137	-0.078					
40	67.5	-0.196	-0.198	-0.156	-0.146	-0.078					
41	77.5	-0.197	-0.198	-0.157	-0.147	-0.078					
42	86.0	-0.173	-0.174	-0.141	-0.131	-0.073					
43	94.2	-0.067	-0.048	-0.056	-0.055	-0.063					
F46	2.0	-0.152	-0.152	-0.107	-0.065	-0.040					
35	6.0	-0.152	-0.152	-0.107	-0.065	-0.040					
46	15.0	-0.157	-0.151	-0.126	-0.106	-0.056					
47	47.5	-0.101	-0.092	-0.068	-0.056	-0.036					
48	40.0	-0.152	-0.150	-0.129	-0.109	-0.058					
49	50.0	-0.178	-0.176	-0.146	-0.136	-0.078					
50	59.0	-0.185	-0.186	-0.147	-0.137	-0.078					
51	67.5	-0.196	-0.198	-0.156	-0.146	-0.078					
52	77.5	-0.197	-0.198	-0.157	-0.147	-0.078					
53	86.0	-0.173	-0.174	-0.141	-0.131	-0.073					
54	95.3	.001	-0.050	-0.050	-0.072	-0.030					
F55	2.0	-0.152	-0.152	-0.107	-0.065	-0.040					
55	6.0	-0.152	-0.152	-0.107	-0.065	-0.040					
57	15.0	-0.157	-0.151	-0.126	-0.106	-0.056					
58	47.5	-0.101	-0.092	-0.068	-0.056	-0.036					
59	40.0	-0.152	-0.150	-0.129	-0.109	-0.058					
60	50.0	-0.178	-0.176	-0.146	-0.136	-0.078					
61	59.0	-0.185	-0.186	-0.147	-0.137	-0.078					
62	67.5	-0.196	-0.198	-0.156	-0.146	-0.078					
63	77.5	-0.197	-0.198	-0.157	-0.147	-0.078					
64	86.0	-0.173	-0.174	-0.141	-0.131	-0.073					
F65	2.0	-0.151	-0.152	-0.107	-0.065	-0.040					
65	6.0	-0.151	-0.152	-0.107	-0.065	-0.040					
67	15.0	-0.157	-0.151	-0.126	-0.106	-0.056					
68	27.5	-0.101	-0.092	-0.068	-0.056	-0.036					
69	40.0	-0.152	-0.150	-0.129	-0.109	-0.058					
70	50.0	-0.178	-0.176	-0.146	-0.136	-0.078					
71	59.0	-0.185	-0.186	-0.147	-0.137	-0.078					
72	67.5	-0.196	-0.198	-0.156	-0.146	-0.078					
73	77.5	-0.197	-0.198	-0.157	-0.147	-0.078					
74	86.0	-0.173	-0.174	-0.141	-0.131	-0.073					
75	95.3	.003	-0.054	-0.054	-0.056	-0.050					
F76	2.0	-0.151	-0.152	-0.107	-0.065	-0.040					
77	6.0	-0.151	-0.152	-0.107	-0.065	-0.040					
78	15.0	-0.157	-0.151	-0.126	-0.106	-0.056					
79	27.5	-0.101	-0.092	-0.068	-0.056	-0.036					
80	40.0	-0.152	-0.150	-0.129	-0.109	-0.058					
81	50.0	-0.178	-0.176	-0.146	-0.136	-0.078					
82	59.0	-0.185	-0.186	-0.147	-0.137	-0.078					
83	67.5	-0.196	-0.198	-0.156	-0.146	-0.078					
84	77.5	-0.197	-0.198	-0.157	-0.147	-0.078					
85	86.0	-0.173	-0.174	-0.141	-0.131	-0.073					
86	94.2	.023	-0.054	-0.054	-0.056	-0.050					

CONFIDENTIAL



TABLE 52

 $A = 45^\circ, S_{\infty} = 10.0^2, \alpha = 7^\circ$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE					LOWER SURFACE								
		Mach Number					Mach Number								
		0.60	0.80	0.89	0.965	0.96			0.60	0.80	0.89	0.965	0.96		
1 1	2.0	-1.089	-1.172	-1.005	-0.883	-0.779			66 1	3.0	0.411	0.413	0.414	0.413	0.409
2 2	6.0	-0.615	-0.617	-0.553	-0.525	-0.481			67 1	10.0	.171	.182	.188	.193	.201
3 3	15.0	-0.430	-0.437	-0.396	-0.379	-0.316			68 1	25.0	.156	.164	.170	.176	.188
4 4	24.5	-0.312	-0.319	-0.294	-0.281	-0.254			69 1	41.0	--	--	--	--	--
5 5	40.0	-0.214	-0.214	-0.207	-0.207	-0.204			70 1	56.5	--	--	--	--	--
6 6	50.0	--	--	--	--	--			71 1	72.5	--	--	--	--	--
7 7	59.0	--	--	--	--	--			72 1	82.5	--	--	--	--	--
8 8	67.5	--	--	--	--	--			73 1	94.0	--	--	--	--	--
9 9	77.5	--	--	--	--	--			74 1	94.0	--	--	--	--	--
10 10	87.5	--	--	--	--	--			75 1	95.3	--	--	--	--	--
11 11	96.0	--	--	--	--	--			76 1	96.0	--	--	--	--	--
612 12	2.0	--	--	--	--	--			77 1	96.0	--	--	--	--	--
13 13	6.0	--	--	--	--	--			78 1	97.0	--	--	--	--	--
14 14	15.0	-0.208	-0.208	-0.187	-0.151	-0.106			79 1	97.5	-0.118	-0.113	-0.106	-0.107	-0.117
15 15	27.5	-0.134	-0.134	-0.117	-0.098	-0.061			80 1	98.0	-0.046	-0.042	-0.035	-0.031	-0.040
16 16	40.0	-0.081	-0.081	-0.068	-0.056	-0.038			81 1	99.5	-0.026	-0.020	-0.009	-0.011	-0.006
17 17	50.0	-0.037	-0.037	-0.036	-0.036	-0.026			82 1	100.0	--	--	--	--	--
18 18	59.0	-0.030	-0.030	-0.030	-0.029	-0.023			83 1	101.0	--	--	--	--	--
19 19	77.5	--	--	--	--	--			84 1	102.0	--	--	--	--	--
20 20	87.5	--	--	--	--	--			85 1	103.0	--	--	--	--	--
21 21	96.0	--	--	--	--	--			86 1	94.0	--	--	--	--	--
22 22	95.3	--	--	--	--	--			87 1	95.3	--	--	--	--	--
623 23	2.0	-1.101	-1.101	-1.028	-0.931	-0.760			88 1	96.0	-0.404	-0.395	-0.389	-0.384	-0.393
24 24	6.0	-0.605	-0.611	-0.558	-0.506	-0.458			89 1	96.0	-0.227	-0.217	-0.213	-0.213	-0.200
25 25	15.0	-0.306	-0.306	-0.274	-0.267	-0.207			90 1	96.5	-0.118	-0.113	-0.106	-0.107	-0.117
26 26	27.5	-0.141	-0.141	-0.130	-0.125	-0.108			91 1	97.0	--	--	--	--	--
27 27	40.0	-0.048	-0.048	-0.045	-0.045	-0.033			92 1	97.5	--	--	--	--	--
28 28	50.0	-0.024	-0.024	-0.023	-0.023	-0.018			93 1	98.0	--	--	--	--	--
29 29	59.0	-0.014	-0.014	-0.013	-0.013	-0.010			94 1	98.0	--	--	--	--	--
30 30	67.5	-0.007	-0.007	-0.006	-0.006	-0.005			95 1	98.5	--	--	--	--	--
31 31	77.5	--	--	--	--	--			96 1	99.0	--	--	--	--	--
32 32	87.5	--	--	--	--	--			97 1	99.5	--	--	--	--	--
33 33	96.0	--	--	--	--	--			98 1	96.0	--	--	--	--	--
634 34	2.0	-1.112	-1.119	-1.104	-1.028	-0.801			99 1	96.0	-0.407	-0.393	-0.374	-0.368	-0.367
35 35	15.0	-0.604	-0.605	-0.559	-0.506	-0.457			100 1	10.0	-0.236	-0.221	-0.205	-0.195	-0.190
36 36	27.5	-0.305	-0.305	-0.274	-0.267	-0.207			101 1	25.0	-0.106	-0.093	-0.077	-0.068	-0.063
37 37	40.0	-0.142	-0.142	-0.130	-0.125	-0.108			102 1	41.0	-0.031	-0.020	-0.013	-0.012	-0.012
38 38	50.0	-0.025	-0.025	-0.024	-0.024	-0.018			103 1	56.5	-0.026	-0.020	-0.009	-0.011	-0.006
39 39	59.0	-0.014	-0.014	-0.013	-0.013	-0.010			104 1	62.5	-0.010	-0.007	-0.003	-0.008	-0.003
40 40	67.5	-0.007	-0.007	-0.006	-0.006	-0.005			105 1	72.5	-0.011	-0.008	-0.003	-0.005	-0.002
41 41	77.5	--	--	--	--	--			106 1	82.5	-0.014	-0.009	-0.003	-0.005	-0.002
42 42	87.5	-0.005	-0.005	-0.004	-0.004	-0.003			107 1	92.5	-0.017	-0.012	-0.006	-0.007	-0.002
43 43	96.0	-0.006	-0.006	-0.005	-0.005	-0.004			108 1	94.0	-0.014	-0.007	-0.003	-0.006	-0.001
44 44	95.3	--	--	--	--	--			109 1	94.0	-0.016	-0.010	-0.006	-0.008	-0.003
45 45	2.0	-1.112	-1.119	-1.104	-1.028	-0.801			110 1	94.0	-0.408	-0.395	-0.374	-0.368	-0.367
46 46	6.0	-0.605	-0.612	-0.559	-0.506	-0.457			111 1	94.0	-0.237	-0.222	-0.205	-0.195	-0.190
47 47	15.0	-0.306	-0.306	-0.274	-0.267	-0.207			112 1	94.0	-0.117	-0.106	-0.090	-0.084	-0.084
48 48	27.5	-0.141	-0.141	-0.130	-0.125	-0.108			113 1	94.0	-0.046	-0.031	-0.020	-0.016	-0.016
49 49	40.0	-0.025	-0.025	-0.024	-0.024	-0.018			114 1	94.0	-0.014	-0.009	-0.003	-0.006	-0.005
50 50	50.0	-0.014	-0.014	-0.013	-0.013	-0.010			115 1	94.0	-0.007	-0.002	-0.001	-0.005	-0.004
51 51	59.0	-0.007	-0.007	-0.006	-0.006	-0.005			116 1	94.0	-0.002	-0.001	-0.001	-0.002	-0.001
52 52	67.5	--	--	--	--	--			117 1	94.0	-0.006	-0.001	-0.001	-0.003	-0.002
53 53	77.5	--	--	--	--	--			118 1	94.0	-0.009	-0.002	-0.002	-0.005	-0.004
54 54	87.5	--	--	--	--	--			119 1	94.0	-0.014	-0.007	-0.007	-0.011	-0.010
55 55	96.0	--	--	--	--	--			120 1	94.0	-0.017	-0.012	-0.012	-0.016	-0.015
56 56	2.0	-1.120	-1.129	-1.119	-1.035	-0.807			121 1	94.0	-0.410	-0.399	-0.382	-0.376	-0.367
57 57	15.0	-0.608	-0.610	-0.558	-0.506	-0.458			122 1	94.0	-0.239	-0.224	-0.209	-0.191	-0.190
58 58	27.5	-0.305	-0.306	-0.274	-0.267	-0.207			123 1	94.0	-0.118	-0.104	-0.090	-0.082	-0.082
59 59	40.0	-0.141	-0.141	-0.130	-0.125	-0.108			124 1	94.0	-0.045	-0.030	-0.020	-0.016	-0.015
60 60	50.0	-0.025	-0.025	-0.024	-0.024	-0.018			125 1	94.0	-0.007	-0.002	-0.001	-0.005	-0.004
61 61	59.0	-0.014	-0.014	-0.013	-0.013	-0.010			126 1	94.0	-0.002	-0.001	-0.001	-0.003	-0.002
62 62	67.5	-0.007	-0.007	-0.006	-0.006	-0.005			127 1	94.0	-0.006	-0.001	-0.001	-0.007	-0.006
63 63	77.5	--	--	--	--	--			128 1	94.0	-0.011	-0.006	-0.006	-0.009	-0.008
64 64	87.5	--	--	--	--	--			129 1	94.0	-0.016	-0.011	-0.011	-0.015	-0.014
65 65	96.0	--	--	--	--	--			130 1	94.0	-0.021	-0.016	-0.016	-0.020	-0.019
66 66	2.0	-1.121	-1.129	-1.119	-1.035	-0.807			131 1	10.0	-0.411	-0.399	-0.382	-0.376	-0.367
67 67	15.0	-0.608	-0.610	-0.558	-0.506	-0.458			132 1	25.0	-0.239	-0.224	-0.209	-0.191	-0.190
68 68	27.5	-0.305	-0.306	-0.274	-0.267	-0.207			133 1	41.0	-0.118	-0.104	-0.090	-0.082	-0.082
69 69	40.0	-0.141	-0.141	-0.130	-0.125	-0.108			134 1	56.5	-0.045	-0.030	-0.020	-0.016	-0.015
70 70	50.0	-0.025	-0.025	-0.024	-0.024	-0.018			135 1	62.5	-0.007	-0.002	-0.001	-0.005	-0.004
71 71	59.0	-0.014	-0.014	-0.013	-0.013	-0.010			136 1	72.5	-0.002	-0.001	-0.001	-0.003	-0.002
72 72	67.5	-0.007	-0.007	-0.006	-0.006	-0.005			137 1	82.5	-0.006	-0.001	-0.001	-0.007	-0.006
73 73	77.5	--	--	--	--	--			138 1	92.5	-0.011	-0.006	-0.006	-0.010	-0.009
74 74	87.5	--	--	--	--	--			139 1	94.0	-0.016	-0.011	-0.011	-0.015	-0.014
75 75	96.0	--	--	--	--	--			140 1	94.0	-0.021	-0.016	-0.016	-0.020	-0.019
76 76	2.0	-1.121	-1.129	-1.119	-1.035	-0.807			141 1	94.0	-0.412	-0.399	-0.382	-0.376	-0.367
77 77	15.0	-0.608	-0.610	-0.558	-0.506	-0.458			142 1	94.0	-0				

TABLE 33

 $\left[\Lambda = -30^\circ, \delta_{\alpha_0} = -10.0^\circ, \alpha = -2^\circ \right]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE				LOWER SURFACE			
		cent	Mach Number			cent	Mach Number		
			0.60	0.80	0.85		0.60	0.80	0.85
1	2.0	--	--	--	--	--	--	--	--
2	4.0	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--
6	50.0	-0.181	-0.221	-0.239	-0.239	--	--	--	--
7	59.0	-0.158	-0.176	-0.180	-0.187	--	--	--	--
8	67.5	-0.099	-0.086	0.068	0.076	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--
12	2.0	.176	.209	.204	.187	--	--	--	--
13	8.0	.156	.193	.173	.160	--	--	--	--
14	15.0	-.063	-.083	-.109	-.130	--	--	--	--
15	27.5	-.177	-.236	-.277	-.307	--	--	--	--
16	40.0	-.299	-.299	-.300	-.304	--	--	--	--
17	50.0	-.197	-.204	-.204	-.204	--	--	--	--
18	59.0	-.139	-.144	-.144	-.144	--	--	--	--
19	67.5	-.130	-.167	-.170	-.170	--	--	--	--
20	77.5	-.049	-.066	-.066	-.067	--	--	--	--
21	86.0	.056	.095	.080	.063	--	--	--	--
22	95.3	--	--	--	--	--	--	--	--
23	2.0	.466	.503	.508	.501	--	--	--	--
24	6.0	.172	.213	.201	.218	--	--	--	--
25	15.0	-.084	-.081	-.076	-.076	--	--	--	--
26	27.5	-.159	-.182	-.190	-.193	--	--	--	--
27	40.0	-.291	-.279	-.313	-.313	--	--	--	--
28	50.0	-.196	-.239	-.256	-.247	--	--	--	--
29	59.0	-.201	-.259	-.266	-.269	--	--	--	--
30	67.5	-.185	-.196	-.200	-.200	--	--	--	--
31	77.5	-.068	-.076	-.085	-.085	--	--	--	--
32	86.0	.083	.083	.073	.063	--	--	--	--
33	95.3	--	--	--	--	--	--	--	--
34	2.0	.316	.356	.363	.353	--	--	--	--
35	15.0	-.080	-.009	-.003	-.009	--	--	--	--
36	27.5	-.130	-.148	-.148	-.170	--	--	--	--
37	40.0	-.210	-.254	-.263	-.272	--	--	--	--
38	50.0	-.219	-.273	-.276	-.276	--	--	--	--
39	59.0	-.138	-.260	-.266	-.275	--	--	--	--
40	67.5	-.106	-.125	-.125	-.125	--	--	--	--
41	77.5	-.100	-.115	-.116	-.116	--	--	--	--
42	87.5	.083	.083	.073	.063	--	--	--	--
43	94.2	.076	.073	.065	.047	--	--	--	--
44	2.0	.496	.513	.512	.516	--	--	--	--
45	6.0	.187	.209	.235	.244	--	--	--	--
46	15.0	-.072	-.009	.015	.009	--	--	--	--
47	27.5	-.113	-.124	-.124	-.125	--	--	--	--
48	40.0	-.219	-.213	-.213	-.213	--	--	--	--
49	50.0	-.180	-.216	-.230	-.239	--	--	--	--
50	59.0	-.152	-.187	-.199	-.206	--	--	--	--
51	67.5	-.116	-.152	-.168	-.177	--	--	--	--
52	77.5	-.079	-.087	-.091	-.093	--	--	--	--
53	86.0	.133	.136	.125	.126	--	--	--	--
54	95.3	.073	.073	.070	.076	--	--	--	--
55	2.0	.376	.393	.390	.383	--	--	--	--
56	6.0	.208	.239	.244	.250	--	--	--	--
57	15.0	.010	.099	.087	.030	--	--	--	--
58	27.5	-.109	-.107	-.110	-.111	--	--	--	--
59	40.0	-.153	-.186	-.195	-.206	--	--	--	--
60	50.0	-.148	-.173	-.173	-.191	--	--	--	--
61	59.0	-.099	-.129	-.133	-.137	--	--	--	--
62	67.5	-.056	-.076	-.093	-.116	--	--	--	--
63	77.5	-.039	-.076	-.093	-.106	--	--	--	--
64	86.0	.117	.115	.115	.124	--	--	--	--
65	94.2	.057	.046	.046	.059	--	--	--	--
66	2.0	.494	.506	.508	.509	--	--	--	--
67	6.0	.209	.239	.246	.254	--	--	--	--
68	15.0	.006	.036	.037	.048	--	--	--	--
69	27.5	-.076	-.074	-.076	-.104	--	--	--	--
70	40.0	-.118	-.150	-.160	-.179	--	--	--	--
71	50.0	-.063	-.093	-.105	-.117	--	--	--	--
72	59.0	-.039	-.076	-.093	-.116	--	--	--	--
73	67.5	.280	.286	.281	.285	--	--	--	--
74	77.5	--	--	--	--	--	--	--	--
75	87.5	--	--	--	--	--	--	--	--
76	96.0	.073	.059	.053	.061	--	--	--	--
77	2.0	.498	.507	.463	.476	--	--	--	--
78	6.0	.203	.236	.245	.245	--	--	--	--
79	15.0	.003	.010	.017	.009	--	--	--	--
80	27.5	-.100	-.123	-.127	-.126	--	--	--	--
81	40.0	-.151	-.195	-.211	-.223	--	--	--	--
82	50.0	-.133	-.196	-.208	-.220	--	--	--	--
83	59.0	-.108	-.139	-.160	-.177	--	--	--	--
84	67.5	-.070	-.090	-.090	-.095	--	--	--	--
85	77.5	.087	.098	.094	.095	--	--	--	--
86	86.0	--	--	--	--	--	--	--	--
87	94.2	--	--	--	--	--	--	--	--

CONFIDENTIAL



59

TABLE 5

$$A = -30^\circ, B_0 = -10.0^\circ, \alpha = 0^\circ$$

CONFIDENTIAL

CONFIDENTIAL



TABLE 55

$$[A = -10^\circ, \delta_{\text{th}} = -10.0^\circ, \alpha = 8^\circ]$$

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.60	0.65	0.65	0.80	0.80	0.85	0.85	0.925	0.925	0.95	0.95
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
6	6.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	45.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.231	-0.263	-0.197	-0.258	-0.193	-0.245	-0.158	-0.139	-0.127	-0.130	-0.173	-0.196
7	55.0	-0.219	-0.198	-0.160	-0.192	-0.177	-0.177	-0.127	-0.099	-0.052	-0.052	-0.054	-0.067
8	59.0	-0.215	-0.110	-0.108	-0.086	-0.068	-0.052	-0.046	-0.006	-0.006	-0.001	-0.017	-0.017
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--
B12	2.0	-0.89	-0.773	-0.56	-0.448	-0.286	-0.190	0.08	0.203	0.158	0.128	0.068	0.075
13	8.0	-0.27	-0.17	-0.10	-0.06	-0.02	-0.00	-0.00	-0.031	-0.005	-0.03	-0.057	-0.057
15	15.0	-0.19	-0.23	-0.09	-0.05	-0.02	-0.00	-0.00	-0.039	-0.009	-0.039	-0.059	-0.059
16	20.0	-0.201	-0.173	-0.077	-0.050	-0.024	-0.00	-0.00	-0.045	-0.011	-0.045	-0.066	-0.066
17	25.0	-0.36	-0.383	-0.769	-0.823	-0.803	-0.793	-0.73	-0.126	-0.166	-0.159	-0.175	-0.176
18	30.0	-0.329	-0.195	-0.073	-0.043	-0.016	-0.00	-0.00	-0.059	-0.009	-0.059	-0.070	-0.070
19	35.0	-0.296	-0.270	-0.161	-0.116	-0.068	-0.03	-0.00	-0.059	-0.009	-0.059	-0.064	-0.064
20	37.5	-0.164	-0.176	-0.107	-0.075	-0.046	-0.01	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
21	45.0	-0.078	-0.076	-0.061	-0.042	-0.024	-0.00	-0.00	-0.057	-0.009	-0.057	-0.064	-0.064
22	55.0	-0.031	-0.037	-0.033	-0.031	-0.013	-0.00	-0.00	-0.057	-0.009	-0.057	-0.064	-0.064
C23	2.0	-0.461	-0.407	-0.308	-0.213	-0.047	-0.018	0.08	0.203	0.158	0.128	0.068	0.075
24	6.0	-0.234	-0.198	-0.120	-0.094	-0.026	-0.00	-0.00	-0.031	-0.005	-0.031	-0.057	-0.057
25	15.0	-0.326	-0.260	-0.253	-0.169	-0.093	-0.02	-0.00	-0.039	-0.009	-0.039	-0.057	-0.057
26	25.0	-0.217	-0.182	-0.172	-0.111	-0.051	-0.01	-0.00	-0.045	-0.011	-0.045	-0.066	-0.066
27	40.0	-0.402	-0.465	-0.729	-0.706	-0.663	-0.591	-0.463	-0.126	-0.166	-0.159	-0.175	-0.176
28	50.0	-0.319	-0.187	-0.120	-0.087	-0.036	-0.00	-0.00	-0.059	-0.011	-0.059	-0.066	-0.066
29	59.0	-0.310	-0.116	-0.062	-0.036	-0.016	-0.00	-0.00	-0.059	-0.011	-0.059	-0.066	-0.066
30	63.0	-0.181	-0.120	-0.067	-0.036	-0.016	-0.00	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
31	77.5	-0.090	-0.109	-0.071	-0.030	-0.013	-0.00	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
32	86.0	-0.037	-0.049	-0.027	-0.007	-0.002	-0.00	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
33	95.0	--	--	--	--	--	--	--	--	--	--	--	--
D34	2.0	-0.39	-0.350	-0.263	-0.193	-0.06	-0.01	0.08	0.203	0.158	0.128	0.068	0.075
35	15.0	-0.392	-0.293	-0.167	-0.154	-0.071	-0.02	-0.00	-0.031	-0.005	-0.031	-0.057	-0.057
36	27.5	-0.204	-0.171	-0.107	-0.065	-0.024	-0.00	-0.00	-0.045	-0.011	-0.045	-0.066	-0.066
37	45.0	-0.297	-0.257	-0.161	-0.144	-0.056	-0.02	-0.00	-0.045	-0.011	-0.045	-0.066	-0.066
38	50.0	-0.314	-0.279	-0.198	-0.146	-0.061	-0.02	-0.00	-0.059	-0.011	-0.059	-0.066	-0.066
39	39.0	-0.266	-0.208	-0.139	-0.098	-0.046	-0.01	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
40	67.5	--	--	--	--	--	--	--	--	--	--	--	--
41	77.5	-0.098	-0.118	-0.064	-0.031	-0.012	-0.00	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
42	87.5	-0.007	-0.017	-0.017	-0.007	-0.002	-0.00	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
43	94.0	-0.060	-0.062	-0.042	-0.012	-0.002	-0.00	-0.00	-0.057	-0.011	-0.057	-0.064	-0.064
E44	2.0	-0.202	-0.179	-0.114	-0.085	-0.036	-0.00	-0.00	-0.031	-0.005	-0.031	-0.057	-0.057
45	6.0	-0.137	-0.179	-0.136	-0.049	-0.031	-0.00	-0.00	-0.045	-0.011	-0.045	-0.066	-0.066
46	15.0	-0.254	-0.424	-0.417	-0.418	-0.380	-0.319	-0.196	-0.137	-0.136	-0.165	-0.192	-0.201
47	27.5	-0.313	-0.442	-0.442	-0.501	-0.496	-0.487	-0.444	-0.359	-0.359	-0.235	-0.276	-0.364
48	45.0	-0.354	-0.444	-0.444	-0.504	-0.504	-0.499	-0.459	-0.374	-0.374	-0.267	-0.327	-0.423
49	50.0	-0.333	-0.398	-0.398	-0.458	-0.458	-0.457	-0.417	-0.332	-0.332	-0.251	-0.312	-0.436
50	53.0	-0.287	-0.390	-0.390	-0.458	-0.458	-0.457	-0.417	-0.332	-0.332	-0.251	-0.312	-0.436
51	67.5	-0.181	-0.173	-0.187	-0.178	-0.178	-0.178	-0.138	-0.059	-0.059	-0.159	-0.168	-0.168
52	77.5	-0.094	-0.129	-0.128	-0.134	-0.136	-0.136	-0.134	-0.059	-0.059	-0.145	-0.177	-0.176
53	86.0	-0.031	-0.071	-0.071	-0.076	-0.076	-0.076	-0.074	-0.059	-0.059	-0.060	-0.098	-0.098
54	95.0	-0.034	-0.048	-0.048	-0.056	-0.056	-0.056	-0.054	-0.059	-0.059	-0.067	-0.076	-0.076
F55	2.0	-0.267	-0.273	-0.214	-0.134	-0.079	-0.02	-0.00	-0.031	-0.005	-0.031	-0.057	-0.057
56	6.0	-0.216	-0.276	-0.336	-0.300	-0.260	-0.204	-0.189	-0.126	-0.126	-0.165	-0.179	-0.168
57	15.0	-0.326	-0.394	-0.456	-0.398	-0.360	-0.300	-0.280	-0.207	-0.207	-0.237	-0.237	-0.246
58	27.5	-0.203	-0.306	-0.406	-0.475	-0.476	-0.429	-0.393	-0.309	-0.309	-0.377	-0.377	-0.377
59	45.0	-0.317	-0.394	-0.464	-0.464	-0.465	-0.426	-0.399	-0.309	-0.309	-0.381	-0.381	-0.381
60	50.0	-0.203	-0.306	-0.372	-0.469	-0.469	-0.429	-0.393	-0.309	-0.309	-0.377	-0.377	-0.377
61	53.0	-0.203	-0.306	-0.372	-0.469	-0.469	-0.429	-0.393	-0.309	-0.309	-0.377	-0.377	-0.377
62	57.5	-0.047	-0.061	-0.067	-0.061	-0.067	-0.067	-0.067	-0.059	-0.059	-0.067	-0.067	-0.067
63	86.0	-0.087	-0.073	-0.076	-0.076	-0.076	-0.076	-0.076	-0.059	-0.059	-0.081	-0.081	-0.081
64	94.0	-0.056	-0.053	-0.047	-0.049	-0.056	-0.056	-0.056	-0.059	-0.059	-0.047	-0.047	-0.047
G65	2.0	-0.217	-0.207	-0.126	-0.139	-0.079	-0.02	-0.00	-0.031	-0.005	-0.031	-0.057	-0.057
66	6.0	-0.270	-0.311	-0.301	-0.274	-0.274	-0.217	-0.177	-0.126	-0.126	-0.165	-0.165	-0.165
67	15.0	-0.294	-0.361	-0.459	-0.398	-0.361	-0.309	-0.274	-0.207	-0.207	-0.240	-0.240	-0.240
68	27.5	-0.294	-0.361	-0.459	-0.501	-0.501	-0.449	-0.414	-0.309	-0.309	-0.377	-0.377	-0.377
69	45.0	-0.279	-0.369	-0.459	-0.501	-0.501	-0.449	-0.414	-0.309	-0.309	-0.377	-0.377	-0.377
70	50.0	-0.279	-0.369	-0.459	-0.501	-0.501	-0.449	-0.414	-0.309	-0.309	-0.377	-0.377	-0.377
71	52.0	-0.186	-0.265	-0.104	-0.343	-0.343	-0.315	-0.205	-0.126	-0.126	-0.237	-0.237	-0.237
72	67.5	-0.033	-0.013	-0.013	-0.016	-0.016	-0.016	-0.016	-0.006	-0.006	-0.045	-0.045	-0.045
73	77.5	-0.150	-0.156	-0.159	-0.162	-0.162	-0.162	-0.162	-0.109	-0.109	-0.162	-0.162	-0.162
74	87.5	--	--	--	--	--	--	--	--	--	--	--	--
75	86.0	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.003	-0.003	-0.009	-0.009	-0.009
H76	2.0	-0.203	-0.173	-0.130	-0.080	-0.075	-0.00	-0.00	-0.108	-0.015	-0.108	-0.10	-0.10
77	6.0	-0.271	-0.293	-0.276	-0.261	-0.260	-0.206	-0.151	-0.121	-0.121	-0.137	-0.137	-0.137
78	15.0	-0.255	-0.363	-0.333	-0.363	-0.363	-0.378	-0.334	-0.260	-0.260	-0.311	-0.311	-0.311
79	27.5	-0.255	-0.363	-0.333	-0.363	-0.363	-0.378	-0.334	-0.260	-0.260	-0.311</		

TABLE 96

 $[A = -30^\circ, S_{\infty} = -10.0^\circ, \alpha = 4^\circ]$

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.90	0.925	0.96	0.60	0.80	0.85	0.90	0.925	0.96
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.297	-0.258	-0.205	-0.184	-0.152	-0.130	-0.107	-0.080	-0.062	-0.046	-0.031	-0.027
7	59.0	-0.298	-0.273	-0.235	-0.202	-0.170	-0.136	-0.099	-0.073	-0.054	-0.040	-0.028	-0.021
8	68.5	-0.302	-0.275	-0.241	-0.208	-0.175	-0.140	-0.107	-0.081	-0.062	-0.048	-0.034	-0.025
9	77.5	-0.303	-0.280	-0.251	-0.220	-0.187	-0.153	-0.120	-0.093	-0.073	-0.058	-0.043	-0.031
10	87.5	-0.304	-0.284	-0.254	-0.223	-0.190	-0.157	-0.124	-0.096	-0.076	-0.061	-0.046	-0.032
11	96.0	-0.305	-0.286	-0.255	-0.225	-0.191	-0.159	-0.125	-0.097	-0.077	-0.062	-0.047	-0.033
B12	2.0	-1.769	-1.278	-1.109	-0.884	-0.702	-0.570	--	--	--	--	--	--
13	6.0	-1.039	-1.178	-1.184	-0.980	-0.822	-0.656	-0.562	-0.459	-0.368	-0.285	-0.213	-0.131
14	15.0	-1.034	-1.173	-1.180	-0.979	-0.820	-0.654	-0.560	-0.457	-0.366	-0.284	-0.212	-0.130
15	25.0	-1.035	-1.174	-1.181	-0.980	-0.821	-0.655	-0.561	-0.458	-0.367	-0.285	-0.213	-0.131
16	40.0	-1.036	-1.175	-1.182	-0.980	-0.822	-0.656	-0.562	-0.459	-0.368	-0.285	-0.213	-0.131
17	50.0	-1.036	-1.176	-1.183	-0.981	-0.823	-0.656	-0.563	-0.460	-0.369	-0.286	-0.214	-0.132
18	59.0	-1.037	-1.176	-1.183	-0.981	-0.823	-0.656	-0.563	-0.460	-0.369	-0.286	-0.214	-0.132
19	67.5	-1.037	-1.177	-1.183	-0.980	-0.823	-0.656	-0.564	-0.461	-0.370	-0.287	-0.215	-0.133
20	77.5	-1.038	-1.177	-1.184	-0.980	-0.824	-0.656	-0.565	-0.462	-0.371	-0.287	-0.215	-0.133
21	86.0	-1.039	-1.177	-1.184	-0.980	-0.824	-0.656	-0.565	-0.462	-0.371	-0.287	-0.215	-0.133
22	95.5	-1.039	-1.178	-1.185	-0.980	-0.825	-0.657	-0.566	-0.463	-0.372	-0.288	-0.216	-0.134
C23	2.0	-1.299	-0.910	-0.729	-0.543	-0.425	-0.326	--	--	--	--	--	--
24	8.0	-0.895	-1.051	-1.089	-0.872	-0.724	-0.560	-0.460	-0.365	-0.285	-0.205	-0.136	-0.065
25	15.0	-0.941	-0.942	-0.866	-0.731	-0.584	-0.537	--	--	--	--	--	--
26	25.0	-0.946	-0.945	-0.867	-0.732	-0.585	-0.538	--	--	--	--	--	--
27	40.0	-0.941	-0.942	-0.868	-0.733	-0.586	-0.539	--	--	--	--	--	--
28	50.0	-0.940	-0.940	-0.869	-0.734	-0.587	-0.540	--	--	--	--	--	--
29	59.0	-0.940	-0.940	-0.870	-0.734	-0.588	-0.541	--	--	--	--	--	--
30	68.5	-0.940	-0.940	-0.871	-0.735	-0.589	-0.542	--	--	--	--	--	--
31	77.5	-0.940	-0.940	-0.872	-0.736	-0.590	-0.543	--	--	--	--	--	--
32	86.0	-0.940	-0.940	-0.873	-0.736	-0.591	-0.544	--	--	--	--	--	--
33	95.5	-0.940	-0.940	-0.874	-0.737	-0.592	-0.545	--	--	--	--	--	--
D34	2.0	-1.025	-0.890	-0.680	-0.437	-0.313	-0.183	--	--	--	--	--	--
35	15.0	-0.941	-0.779	-0.604	-0.443	-0.327	-0.193	--	--	--	--	--	--
36	25.0	-0.942	-0.780	-0.605	-0.444	-0.328	-0.194	--	--	--	--	--	--
37	40.0	-0.943	-0.780	-0.606	-0.445	-0.329	-0.195	--	--	--	--	--	--
38	50.0	-0.943	-0.780	-0.607	-0.446	-0.330	-0.196	--	--	--	--	--	--
39	59.0	-0.943	-0.781	-0.607	-0.446	-0.330	-0.196	--	--	--	--	--	--
40	67.5	-0.943	-0.781	-0.608	-0.447	-0.331	-0.197	--	--	--	--	--	--
41	77.5	-0.943	-0.782	-0.608	-0.447	-0.331	-0.197	--	--	--	--	--	--
42	86.0	-0.944	-0.782	-0.609	-0.448	-0.332	-0.198	--	--	--	--	--	--
43	95.5	-0.944	-0.783	-0.610	-0.449	-0.333	-0.198	--	--	--	--	--	--
E44	2.0	-0.986	-0.890	-0.732	-0.502	-0.357	-0.203	--	--	--	--	--	--
45	8.0	-0.726	-0.960	-0.787	-0.642	-0.510	-0.366	--	--	--	--	--	--
46	15.0	-0.908	-0.760	-0.813	-0.711	-0.563	-0.401	--	--	--	--	--	--
47	27.5	-0.907	-0.761	-0.813	-0.712	-0.564	-0.402	--	--	--	--	--	--
48	40.0	-0.903	-0.762	-0.813	-0.713	-0.565	-0.403	--	--	--	--	--	--
49	50.0	-0.903	-0.762	-0.813	-0.714	-0.566	-0.404	--	--	--	--	--	--
50	59.0	-0.903	-0.763	-0.814	-0.715	-0.567	-0.405	--	--	--	--	--	--
51	67.5	-0.903	-0.763	-0.814	-0.715	-0.568	-0.406	--	--	--	--	--	--
52	77.5	-0.903	-0.763	-0.814	-0.716	-0.569	-0.407	--	--	--	--	--	--
53	86.0	-0.904	-0.764	-0.814	-0.716	-0.569	-0.407	--	--	--	--	--	--
54	95.5	-0.904	-0.765	-0.815	-0.717	-0.570	-0.408	--	--	--	--	--	--
F55	2.0	-0.910	-0.871	-0.731	-0.501	-0.361	-0.201	--	--	--	--	--	--
56	6.0	-0.712	-0.931	-0.831	-0.707	-0.583	-0.447	--	--	--	--	--	--
57	15.0	-0.705	-0.706	-0.726	-0.632	-0.591	-0.421	--	--	--	--	--	--
58	25.0	-0.645	-0.620	-0.705	-0.662	-0.587	-0.416	--	--	--	--	--	--
59	37.5	-0.630	-0.613	-0.706	-0.663	-0.588	-0.417	--	--	--	--	--	--
60	45.0	-0.626	-0.607	-0.706	-0.664	-0.589	-0.418	--	--	--	--	--	--
61	50.0	-0.621	-0.602	-0.707	-0.665	-0.590	-0.419	--	--	--	--	--	--
62	59.0	-0.621	-0.602	-0.707	-0.666	-0.591	-0.419	--	--	--	--	--	--
63	67.5	-0.620	-0.602	-0.708	-0.666	-0.592	-0.420	--	--	--	--	--	--
64	77.5	-0.620	-0.602	-0.708	-0.667	-0.593	-0.420	--	--	--	--	--	--
G65	2.0	-0.795	-0.784	-0.592	-0.394	-0.201	-0.080	--	--	--	--	--	--
66	6.0	-0.687	-0.800	-0.685	-0.577	-0.449	-0.247	--	--	--	--	--	--
67	15.0	-0.676	-0.796	-0.678	-0.570	-0.450	-0.250	--	--	--	--	--	--
68	27.5	-0.676	-0.796	-0.680	-0.571	-0.451	-0.251	--	--	--	--	--	--
69	40.0	-0.676	-0.796	-0.681	-0.572	-0.452	-0.252	--	--	--	--	--	--
70	50.0	-0.677	-0.796	-0.681	-0.572	-0.452	-0.252	--	--	--	--	--	--
71	59.0	-0.677	-0.797	-0.682	-0.573	-0.453	-0.253	--	--	--	--	--	--
72	67.5	-0.677	-0.797	-0.682	-0.573	-0.453	-0.253	--	--	--	--	--	--
73	77.5	-0.680	-0.798	-0.684	-0.574	-0.454	-0.254	--	--	--	--	--	--
74	86.0	-0.680	-0.798	-0.685	-0.575	-0.455	-0.255	--	--	--	--	--	--
75	95.5	-0.680	-0.798	-0.686	-0.576	-0.456	-0.255	--	--	--	--	--	--
H76	2.0	-0.653	-0.674	-0.613	-0.503	-0.396	-0.263	--	--	--	--	--	--
77	6.0	-0.539	-0.645	-0.689	-0.607	-0.514	-0.397	--	--	--	--	--	--
78	15.0	-0.400	-0.695	-0.508	-0.507	-0.476	-0.387	--	--	--	--	--	--
79	27.5	-0.377	-0.678	-0.559	-0.511	-0.488	-0.389	--	--	--	--	--	--
80	40.0	-0.368	-0.679	-0.560	-0.512	-0.489	-0.390	--	--	--	--	--	--
81	50.0	-0.375	-0.682	-0.561	-0.513	-0.490	-0.391	--	--	--	--	--	--
82	59.0	-0.377	-0.682	-0.562	-0.513	-0.491	-0.392	--	--	--	--	--	--
83	67.5	-0.377	-0.683	-0.563	-0.513	-0.492	-0.392	--	--	--	--	--	--
84	76.0	-0.377	-0.684	-0.564	-0.513	-0.493	-0.393	--	--	--	--	--	--
85	84.8	-0.378	-0.685	-0.565	-0.514	-0.494	-0.394	--	--	--	--	--	--

CONFIDENTIAL

NACA

TABLE 57
 $[A = -30^\circ, S_{\alpha_0} = -30.0^\circ, \alpha = 1^\circ]$

CONFIDENTIAL									
Tube	Per-	cent	chord	Mach Number					
				0.60	0.80	0.85	0.89	0.925	0.96
1	2.0	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--
6	50.0	-0.473	-0.463	-0.468	-0.472	-0.461	-0.456	-0.446	--
7	58.0	-0.392	-0.460	-0.575	-0.595	-0.610	-0.620	-0.625	--
8	67.5	-0.313	-0.532	-0.565	-0.582	-0.617	-0.625	-0.625	--
9	77.5	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--
12	2.0	-0.681	-1.426	-1.279	-1.153	-1.067	-0.966	--	--
13	6.0	-0.601	-1.116	-1.159	-1.080	-0.979	-0.926	--	--
14	15.0	-0.599	-1.006	-1.099	-1.017	-0.917	-0.816	--	--
15	27.5	-0.711	-0.949	-0.942	-0.917	-0.816	-0.708	--	--
16	40.0	-0.654	-0.904	-0.917	-0.938	-0.866	-0.795	--	--
17	50.0	-0.569	-0.808	-0.818	-0.811	-0.711	-0.651	--	--
18	58.0	-0.496	-0.703	-0.721	-0.731	-0.654	-0.575	--	--
19	67.5	-0.397	-0.574	-0.587	-0.593	-0.698	-0.792	--	--
20	77.5	-0.297	-0.504	-0.526	-0.540	-0.705	-0.795	--	--
21	87.5	-0.196	-0.406	-0.426	-0.440	-0.697	-0.795	--	--
22	96.0	--	-0.140	-0.206	-0.287	-0.502	-0.701	-0.657	--
23	2.0	-1.486	-1.471	-1.217	-1.000	-0.811	-0.710	--	--
24	6.0	-1.311	-1.410	-1.206	-1.064	-0.808	-0.792	--	--
25	15.0	-0.850	-1.299	-1.106	-1.017	-0.811	-0.806	--	--
26	27.5	-0.608	-1.079	-0.975	-0.907	-0.808	-0.795	--	--
27	40.0	-0.507	-0.967	-0.968	-0.977	-0.887	-0.807	--	--
28	50.0	-0.451	-0.810	-0.848	-0.867	-0.807	-0.795	--	--
29	58.0	-0.397	-0.742	-0.737	-0.749	-0.701	-0.662	--	--
30	67.5	-0.279	-0.572	-0.565	-0.577	-0.610	-0.618	--	--
31	77.5	-0.187	-0.454	-0.438	-0.452	-0.514	-0.650	--	--
32	87.5	-0.071	-0.113	-0.106	-0.106	-0.187	-0.524	--	--
33	95.5	--	--	--	--	--	--	--	--
34	2.0	-0.000	-1.177	-1.116	-0.912	-0.790	-0.666	--	--
35	15.0	-0.100	-1.000	-1.026	-0.881	-0.864	-0.765	--	--
36	27.5	-0.608	-1.101	-1.096	-0.909	-0.861	-0.761	--	--
37	40.0	-0.544	-0.773	-1.026	-0.980	-0.954	-0.875	--	--
38	50.0	-0.490	-0.511	-0.511	-0.505	-0.617	-0.860	--	--
39	58.0	-0.408	-0.385	-0.385	-0.375	-0.785	-0.800	--	--
40	67.5	--	--	--	--	--	--	--	--
41	77.5	-0.140	-0.105	-0.139	-0.136	-0.166	-0.612	--	--
42	87.5	-0.090	-0.041	-0.076	-0.125	-0.171	-0.644	--	--
43	94.2	-0.030	--	-0.099	-0.118	-0.183	-0.650	--	--
44	2.0	-1.987	-1.449	-1.173	-1.003	-0.890	-0.661	--	--
45	6.0	-1.504	-1.400	-1.186	-1.081	-0.864	-0.792	--	--
46	15.0	-0.823	-1.332	-1.168	-1.036	-0.894	-0.765	--	--
47	27.5	-0.621	-1.259	-1.082	-1.008	-0.891	-0.782	--	--
48	40.0	-0.518	-0.753	-1.003	-0.965	-0.873	-0.772	--	--
49	50.0	-0.413	-0.477	-0.473	-0.489	-0.860	-0.765	--	--
50	58.0	-0.337	-0.313	-0.308	-0.300	-0.634	-0.714	--	--
51	67.5	--	--	--	--	--	--	--	--
52	77.5	-0.146	-0.115	-0.166	-0.166	-0.250	-0.714	--	--
53	87.5	-0.067	-0.036	-0.187	-0.283	-0.383	-0.748	--	--
54	95.5	-0.021	-0.031	-0.135	-0.230	-0.393	-0.795	--	--
55	2.0	-0.048	-1.429	-1.173	-1.003	-0.860	-0.661	--	--
56	6.0	-1.170	-1.410	-1.186	-1.033	-0.867	-0.736	--	--
57	15.0	-0.781	-1.306	-1.153	-1.045	-0.893	-0.756	--	--
58	27.5	-0.604	-1.205	-1.036	-0.977	-0.894	-0.762	--	--
59	40.0	-0.512	-0.748	-0.748	-0.748	-0.864	-0.758	--	--
60	50.0	-0.467	-0.474	-0.477	-0.489	-0.865	-0.760	--	--
61	58.0	-0.399	-0.377	-0.368	-0.368	-0.646	-0.748	--	--
62	67.5	-0.151	-0.167	-0.132	-0.132	-0.484	-0.748	--	--
63	77.5	-0.039	-0.033	-0.026	-0.178	-0.406	-0.490	--	--
64	84.6	-0.011	-0.034	-0.035	-0.217	-0.393	-0.536	--	--
65	2.0	-1.939	-1.391	-1.148	-1.003	-0.860	-0.642	--	--
66	6.0	-0.941	-1.380	-1.163	-1.033	-0.864	-0.660	--	--
67	15.0	-0.724	-1.340	-1.187	-1.081	-0.893	-0.745	--	--
68	27.5	-0.541	-1.164	-1.083	-0.992	-0.866	-0.770	--	--
69	40.0	-0.441	-0.554	-0.554	-0.569	-0.869	-0.768	--	--
70	50.0	-0.394	-0.357	-0.357	-0.367	-0.645	-0.768	--	--
71	59.0	-0.205	-0.205	-0.178	-0.178	-0.700	-0.744	--	--
72	67.5	-0.100	-0.104	-0.129	-0.129	-0.472	-0.696	--	--
73	77.5	-0.003	-0.032	-0.070	-0.159	-0.187	-0.548	--	--
74	87.2	--	--	--	--	--	--	--	--
75	96.0	-0.054	-0.065	-0.077	-0.088	-0.103	-0.528	--	--
76	2.0	-1.300	-1.268	-1.009	-0.904	-0.763	-0.608	--	--
77	6.0	-0.851	-1.207	-1.083	-0.982	-0.810	-0.672	--	--
78	15.0	-0.704	-1.052	-0.901	-0.901	-0.796	-0.680	--	--
79	27.5	-0.549	-0.650	-0.735	-0.786	-0.783	-0.696	--	--
80	40.0	-0.401	-0.549	-0.673	-0.692	-0.690	-0.610	--	--
81	50.0	-0.351	-0.317	-0.379	-0.424	-0.646	-0.617	--	--
82	59.0	-0.182	-0.182	-0.204	-0.481	-0.599	-0.592	--	--
83	67.5	-0.118	-0.160	-0.164	-0.235	-0.314	-0.411	--	--
84	90.3	-0.007	-0.007	-0.022	-0.042	-0.080	-0.080	--	--
85	94.8	--	--	--	--	--	--	--	--

CONFIDENTIAL

NACA

TABLE 56

 $[A = -30^\circ, \alpha_{\infty} = -5.0^\circ, \alpha = -5^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE				LOWER SURFACE				
		Mach Number				Mach Number				
	cent	shord	0.60	0.80	0.85	0.89	0.60	0.80	0.85	0.89
1	2.0	--	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--
6	50.0	-0.181	-0.201	-0.195	-0.198					
7	55.0	-0.153	-0.175	-0.173	-0.161					
8	67.5	-0.100	-0.123	-0.120	-0.073					
9	77.5	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--
12	2.0	.487	.485	.477	.476					
13	6.0	.139	.152	.150	.151					
14	15.0	-.079	-.107	-.134	-.119					
15	27.5	-.118	-.148	-.143	-.134					
16	40.0	-.236	-.299	-.369	-.363					
17	50.0	-.236	-.290	-.336	-.400					
18	55.0	-.200	-.246	-.276	-.376					
19	67.5	-.164	-.197	-.199	-.105					
20	77.5	-.098	-.067	-.063	-.038					
21	87.5	-.047	-.046	-.049	-.077					
22	95.0	--	--	--	--					
23	2.0	.439	.479	.486	.493					
24	6.0	.105	.191	.148	.108					
25	15.0	-.039	-.036	-.096	-.029					
26	27.5	-.163	-.148	-.216	-.219					
27	40.0	-.238	-.297	-.345	-.380					
28	50.0	-.238	-.297	-.345	-.406					
29	55.0	-.207	-.258	-.299	-.363					
30	67.5	-.190	-.199	-.241	-.306					
31	77.5	-.069	-.046	-.040	-.078					
32	87.5	-.037	-.044	-.040	-.061					
33	95.0	--	--	--	--					
34	2.0	.373	.442	.448	.440					
35	6.0	-.036	-.030	-.029	-.017					
36	15.0	-.187	-.171	-.180	-.180					
37	27.5	-.209	-.275	-.303	-.306					
38	40.0	-.279	-.306	-.304	-.307					
39	50.0	-.279	-.306	-.304	-.307					
40	67.5	-.186	-.186	-.273	-.303					
41	77.5	-.109	-.100	-.079	-.096					
42	87.5	-.018	-.014	-.005	-.003					
43	94.0	.076	.076	.068	.061					
44	2.0	.399	.456	.463	.475					
45	6.0	.137	.141	.100	.100					
46	15.0	-.026	-.040	-.046	-.009					
47	27.5	-.149	-.169	-.176	-.173					
48	40.0	-.214	-.257	-.274	-.264					
49	50.0	-.213	-.259	-.285	-.300					
50	67.5	-.188	-.208	-.245	-.261					
51	77.5	-.141	-.183	-.209	-.206					
52	87.5	-.090	-.071	-.071	-.070					
53	95.0	-.134	-.136	-.131	-.123					
54	95.5	-.066	-.070	-.075	-.069					
55	2.0	.410	.498	.471	.476					
56	6.0	.146	.180	.193	.203					
57	15.0	-.036	-.027	-.029	-.025					
58	27.5	-.137	-.126	-.163	-.166					
59	40.0	-.200	-.236	-.260	-.278					
60	50.0	-.200	-.236	-.259	-.278					
61	55.0	-.154	-.186	-.205	-.215					
62	67.5	-.113	-.123	-.175	-.171					
63	77.5	-.074	-.074	-.077	-.071					
64	84.5	.051	.046	.041	.043					
65	2.0	.400	.466	.388	.465					
66	6.0	.154	.187	.199	.211					
67	15.0	-.080	-.032	-.009	-.001					
68	27.5	-.121	-.123	-.154	-.156					
69	40.0	-.174	-.218	-.283	-.298					
70	50.0	-.171	-.218	-.283	-.298					
71	55.0	-.128	-.157	-.181	-.195					
72	67.5	-.090	-.135	-.171	-.178					
73	77.5	-.121	-.180	-.187	-.181					
74	87.2	.087	.098	.096	.090					
75	96.8	.078	.089	.086	.069					
76	2.0	.365	.408	.393	.441					
77	6.0	.111	.149	.164	.183					
78	15.0	-.039	-.001	-.014	-.001					
79	27.5	-.111	-.151	-.157	-.153					
80	40.0	-.186	-.206	-.250	-.256					
81	50.0	-.186	-.206	-.257	-.263					
82	55.0	-.151	-.195	-.205	-.207					
83	67.5	-.043	-.107	-.125	-.170					
84	86.3	-.039	.076	.018	.017					
85	94.2	--	--	--	--					

CONFIDENTIAL



TABLE 39

[$\Lambda = -30^\circ$, $a_{\infty} = -5.0^\circ$, $\alpha = 0^\circ$]

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE						LOWER SURFACE							
		Mach Number						Mach Number							
		0.60	0.80	0.85	0.89	0.925	0.96			0.60	0.80	0.85	0.89	0.925	0.96
41	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
42	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
43	10.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
44	27.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
45	45.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
46	55.0	-0.212	-0.237	-0.230	-0.214	-0.209	-0.197	-0.186	-0.173	-0.165	-0.156	-0.146	-0.135	-0.124	-0.113
47	65.0	-0.171	-0.175	-0.173	-0.159	-0.151	-0.146	-0.137	-0.130	-0.126	-0.120	-0.115	-0.108	-0.100	-0.093
48	75.0	-0.103	-0.100	-0.095	-0.091	-0.084	-0.078	-0.073	-0.068	-0.063	-0.058	-0.053	-0.048	-0.043	-0.038
49	77.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50	87.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
51	94.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
52	94.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
53	6.0	-0.065	-0.061	-0.056	-0.051	-0.046	-0.041	-0.036	-0.031	-0.026	-0.021	-0.016	-0.011	-0.006	-0.001
54	6.0	-0.215	-0.234	-0.239	-0.168	-0.163	-0.159	-0.153	-0.149	-0.145	-0.141	-0.137	-0.133	-0.129	-0.125
55	15.0	-0.270	-0.265	-0.255	-0.215	-0.205	-0.195	-0.185	-0.175	-0.165	-0.155	-0.145	-0.135	-0.125	-0.115
56	27.5	-0.266	-0.265	-0.256	-0.216	-0.206	-0.196	-0.186	-0.176	-0.166	-0.156	-0.146	-0.136	-0.126	-0.116
57	45.0	-0.210	-0.215	-0.210	-0.170	-0.165	-0.155	-0.145	-0.135	-0.125	-0.115	-0.105	-0.095	-0.085	-0.075
58	55.0	-0.288	-0.317	-0.310	-0.270	-0.255	-0.240	-0.225	-0.210	-0.195	-0.180	-0.165	-0.150	-0.135	-0.120
59	65.0	-0.229	-0.247	-0.243	-0.205	-0.190	-0.175	-0.160	-0.145	-0.130	-0.115	-0.100	-0.085	-0.070	-0.055
60	75.0	-0.201	-0.213	-0.208	-0.170	-0.155	-0.140	-0.125	-0.110	-0.095	-0.080	-0.065	-0.050	-0.035	-0.020
61	77.5	-0.084	-0.086	-0.081	-0.060	-0.056	-0.052	-0.047	-0.042	-0.037	-0.032	-0.027	-0.022	-0.017	-0.012
62	87.5	-0.020	-0.022	-0.020	-0.015	-0.014	-0.013	-0.011	-0.010	-0.009	-0.008	-0.007	-0.006	-0.005	-0.004
63	94.0	-0.037	-0.042	-0.049	-0.077	-0.111	-0.142	-0.162	-0.182	-0.202	-0.222	-0.242	-0.262	-0.282	-0.302
64	94.0	-0.076	-0.071	-0.064	-0.049	-0.036	-0.026	-0.016	-0.006	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
65	4.0	.080	.117	.145	.195	.206	.229	.239	.245	.250	.255	.259	.263	.266	.268
66	6.0	.128	.192	.234	.261	.271	.281	.285	.289	.293	.297	.301	.305	.308	.312
67	15.0	.132	.185	.209	.236	.251	.266	.276	.281	.286	.291	.296	.301	.305	.309
68	27.5	.237	.263	.284	.303	.315	.326	.336	.346	.356	.366	.376	.386	.396	.406
69	45.0	.194	.242	.261	.281	.295	.309	.321	.331	.341	.351	.361	.371	.381	.391
70	55.0	.190	.230	.243	.260	.274	.287	.297	.307	.317	.327	.337	.347	.357	.367
71	65.0	.171	.210	.220	.237	.247	.257	.267	.277	.287	.297	.307	.317	.327	.337
72	75.0	.175	.215	.227	.237	.246	.256	.266	.276	.286	.296	.306	.316	.326	.336
73	77.5	.094	.096	.095	.086	.076	.066	.056	.046	.036	.026	.016	.006	.001	.001
74	87.5	.076	.083	.086	.095	.095	.095	.095	.095	.095	.095	.095	.095	.095	.095
75	94.0	.098	.082	.095	.077	.071	.065	.060	.055	.050	.045	.040	.035	.030	.025
76	2.0	.064	.116	.146	.186	.213	.231	.241	.251	.261	.271	.281	.291	.301	.311
77	6.0	.097	.048	.075	.042	.036	.030	.024	.018	.012	.006	.001	.001	.001	.001
78	15.0	.200	.228	.232	.215	.199	.184	.170	.155	.140	.125	.110	.095	.080	.065
79	27.5	.250	.296	.312	.336	.356	.376	.396	.416	.436	.456	.476	.496	.516	.536
80	45.0	.264	.309	.321	.334	.347	.357	.367	.377	.387	.397	.407	.417	.427	.437
81	55.0	.250	.291	.311	.333	.353	.373	.393	.413	.433	.453	.473	.493	.513	.533
82	65.0	.175	.215	.223	.205	.187	.170	.153	.136	.119	.102	.085	.068	.051	.035
83	75.0	.170	.210	.218	.209	.190	.173	.156	.139	.122	.105	.088	.071	.054	.038
84	87.5	.084	.095	.094	.084	.074	.064	.054	.044	.034	.024	.014	.004	.001	.001
85	94.0	.053	.053	.045	.045	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035
86	2.0	.104	.146	.176	.207	.234	.254	.274	.294	.314	.334	.354	.374	.394	.414
87	6.0	.078	.073	.059	.056	.051	.047	.043	.038	.033	.028	.023	.018	.013	.008
88	15.0	.154	.194	.193	.194	.195	.193	.191	.189	.187	.185	.183	.181	.179	.177
89	27.5	.215	.256	.273	.290	.307	.320	.333	.346	.359	.372	.385	.398	.411	.424
90	45.0	.240	.299	.318	.338	.356	.376	.395	.415	.435	.455	.475	.495	.515	.535
91	55.0	.230	.297	.315	.333	.357	.377	.397	.417	.437	.457	.477	.497	.517	.537
92	65.0	.177	.219	.226	.236	.246	.256	.266	.276	.286	.296	.306	.316	.326	.336
93	75.0	.177	.219	.226	.236	.246	.256	.266	.276	.286	.296	.306	.316	.326	.336
94	87.5	.091	.098	.098	.099	.099	.099	.099	.099	.099	.099	.099	.099	.099	.099
95	94.0	.018	.010	.010	.015	.015	.009	.009	.009	.009	.009	.009	.009	.009	.009
96	94.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--

CONFIDENTIAL

NACA

TABLE 60

 $A = -30^\circ, \delta_{\infty} = -5.0^\circ, \alpha = 2^\circ$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE						LOWER SURFACE					
		Mech Number						Mech Number					
		0.60	0.80	0.85	0.89	0.925	0.95	0.60	0.80	0.85	0.89	0.925	0.95
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	45.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.217	-0.261	-0.195	-0.257	-0.479	-0.713	--	--	--	--	--	--
7	55.0	-0.181	-0.181	-0.184	-0.183	-0.305	-0.594	--	--	--	--	--	--
8	59.0	-0.136	-0.106	-0.077	-0.055	-0.195	-0.421	--	--	--	--	--	--
9	77.4	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--
812	2.0	-0.945	-0.89	-0.692	-0.49	-0.312	-0.28	--	--	--	--	--	--
13	6.0	-0.652	-0.54	-0.763	-0.628	-0.49	-0.38	-0.198	-0.28	-0.27	-0.267	-0.161	-0.04
14	15.0	-0.406	-0.305	-0.571	-0.777	-0.648	-0.547	--	--	--	--	--	--
15	27.5	-0.148	-0.067	-0.367	-0.911	-0.872	-0.771	-0.687	--	--	--	--	--
16	40.0	-0.061	-0.048	-0.396	-0.799	-0.836	-0.807	-0.753	--	--	--	--	--
17	50.0	-0.035	-0.035	-0.396	-0.799	-0.836	-0.807	-0.753	--	--	--	--	--
18	55.0	-0.033	-0.033	-0.396	-0.799	-0.836	-0.807	-0.753	--	--	--	--	--
19	67.5	-0.033	-0.033	-0.396	-0.799	-0.836	-0.807	-0.753	--	--	--	--	--
20	77.5	-0.046	-0.077	-0.100	-0.252	-0.411	-0.502	-0.500	--	--	--	--	--
21	86.0	.083	.039	.059	.081	.278	.393	.393	--	--	--	--	--
22	95.5	--	--	--	--	.097	.015	.393	--	--	--	--	--
825	2.0	-0.911	-0.859	-0.659	-0.468	-0.213	-0.046	--	--	--	--	--	--
24	6.0	-0.642	-0.521	-0.747	-0.862	-0.706	-0.510	--	--	--	--	--	--
25	15.0	-0.406	-0.271	-0.566	-0.859	-0.805	-0.637	--	--	--	--	--	--
26	27.5	-0.148	-0.067	-0.367	-0.664	-0.737	-0.643	--	--	--	--	--	--
27	40.0	-0.061	-0.038	-0.366	-0.768	-0.819	-0.751	--	--	--	--	--	--
28	50.0	-0.036	-0.036	-0.366	-0.768	-0.819	-0.751	--	--	--	--	--	--
29	59.0	-0.036	-0.036	-0.366	-0.768	-0.819	-0.751	--	--	--	--	--	--
30	67.5	-0.036	-0.036	-0.366	-0.768	-0.819	-0.751	--	--	--	--	--	--
31	77.5	-0.036	-0.036	-0.366	-0.768	-0.819	-0.751	--	--	--	--	--	--
32	86.0	.010	.099	.066	.115	.282	.456	.456	--	--	--	--	--
33	95.3	--	--	--	--	.008	.008	.201	--	--	--	--	--
834	2.0	-0.853	-0.801	-0.601	-0.402	-0.213	-0.046	--	--	--	--	--	--
55	15.0	-0.516	-0.405	-0.599	-0.850	-0.742	-0.583	-0.310	--	--	--	--	--
56	27.5	-0.148	-0.067	-0.367	-0.644	-0.766	-0.651	-0.575	--	--	--	--	--
57	40.0	-0.061	-0.038	-0.366	-0.644	-0.766	-0.651	-0.575	--	--	--	--	--
58	50.0	-0.036	-0.036	-0.366	-0.644	-0.766	-0.651	-0.575	--	--	--	--	--
59	59.0	-0.036	-0.036	-0.366	-0.644	-0.766	-0.651	-0.575	--	--	--	--	--
60	67.5	-0.036	-0.036	-0.366	-0.644	-0.766	-0.651	-0.575	--	--	--	--	--
61	77.5	-0.036	-0.036	-0.366	-0.644	-0.766	-0.651	-0.575	--	--	--	--	--
62	86.0	.071	.083	.103	.123	.276	.434	.434	--	--	--	--	--
63	95.3	.015	.037	.031	.032	.078	.096	.096	.115	--	--	--	--
64	94.5	.004	.006	.013	.013	.004	.004	.004	.003	--	--	--	--
844	2.0	-0.443	-0.402	-0.322	-0.213	-0.148	-0.046	--	--	--	--	--	--
45	6.0	-0.410	-0.321	-0.343	-0.274	-0.174	-0.115	--	--	--	--	--	--
46	15.0	-0.110	-0.094	-0.209	-0.248	-0.182	-0.107	--	--	--	--	--	--
47	27.5	-0.037	-0.037	-0.198	-0.218	-0.177	-0.115	--	--	--	--	--	--
48	40.0	-0.036	-0.036	-0.198	-0.218	-0.176	-0.115	--	--	--	--	--	--
49	50.0	-0.036	-0.036	-0.198	-0.218	-0.176	-0.115	--	--	--	--	--	--
50	59.0	-0.036	-0.036	-0.198	-0.218	-0.176	-0.115	--	--	--	--	--	--
51	67.5	-0.036	-0.036	-0.198	-0.218	-0.176	-0.115	--	--	--	--	--	--
52	77.5	-0.036	-0.036	-0.198	-0.218	-0.176	-0.115	--	--	--	--	--	--
53	86.0	.083	.083	.103	.123	.276	.434	.434	--	--	--	--	--
54	95.5	.016	.046	.056	.056	.096	.096	.096	.096	--	--	--	--
855	2.0	-0.417	-0.392	-0.311	-0.201	-0.141	-0.046	--	--	--	--	--	--
56	6.0	-0.390	-0.361	-0.341	-0.272	-0.171	-0.106	--	--	--	--	--	--
57	15.0	-0.084	-0.074	-0.166	-0.146	-0.093	-0.053	--	--	--	--	--	--
58	27.5	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
59	40.0	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
60	50.0	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
61	59.0	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
62	67.5	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
63	77.5	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
64	86.0	.021	.027	.031	.031	.141	.306	.306	.316	--	--	--	--
65	94.5	.016	.016	.030	.030	.036	.036	.036	.036	--	--	--	--
865	2.0	-0.395	-0.359	-0.293	-0.190	-0.110	-0.046	--	--	--	--	--	--
66	6.0	-0.373	-0.366	-0.307	-0.236	-0.163	-0.103	--	--	--	--	--	--
67	15.0	-0.074	-0.074	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
68	27.5	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
69	40.0	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
70	50.0	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
71	59.0	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
72	67.5	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
73	77.5	-0.036	-0.036	-0.198	-0.198	-0.163	-0.123	--	--	--	--	--	--
74	87.5	.044	.046	.046	.046	.093	.013	.013	.013	--	--	--	--
75	95.5	.060	.061	.060	.060	.061	.077	.077	.077	--	--	--	--
76	94.5	.078	.079	.060	.060	.061	.080	.080	.080	--	--	--	--
77	6.0	-0.276	-0.264	-0.201	-0.139	-0.083	-0.046	--	--	--	--	--	--
78	15.0	-0.269	-0.262	-0.214	-0.167	-0.117	-0.067	--	--	--	--	--	--
79	27.5	-0.203	-0.178	-0.197	-0.147	-0.101	-0.057	--	--	--	--	--	--
80	40.0	-0.121	-0.104	-0.169	-0.121	-0.091	-0.047	--	--	--	--	--	--
81	50.0	-0.071	-0.069	-0.109	-0.091	-0.069	-0.036	--	--	--	--	--	--
82	59.0	-0.049	-0.049	-0.099	-0.089	-0.069	-0.036	--	--	--	--	--	--
83	67.5	-0.046	-0.046	-0.117	-0.105	-0.085	-0.036	--	--	--	--	--	--
84	77.5	.046	.046	.046	.046	.076	.027	.027	.027	--	--	--	--
85	86.0	.046	.046	.046	.046	.065	.016	.016	.016	--	--	--	--
86	94.2	--	--	--	--	--	--	--	--	--	--	--	--

CONFIDENTIAL



NACA

TABLE 61

[$\Lambda = -30^\circ$, $b_{\alpha_0} = -0.0^\circ$, $s = 0^\circ$]

CONFIDENTIAL

Tube	Per- cent chord	UPPER SURFACE						LOWER SURFACE							
		Mech Number						Mech Number							
		0.60	0.80	0.85	0.90	0.925	0.96			0.60	0.80	0.85	0.90	0.925	0.96
4 1	2.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4 2	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4 3	15.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4 4	27.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4 5	40.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4 6	50.0	---	-0.206	-0.130	-0.110	-0.085	-0.075	-0.072	-0.068	---	---	---	---	---	---
4 7	60.0	---	-0.231	-0.143	-0.123	-0.098	-0.088	-0.085	-0.079	---	---	---	---	---	---
4 8	70.0	---	-0.231	-0.143	-0.123	-0.098	-0.088	-0.085	-0.079	---	---	---	---	---	---
4 9	77.5	---	-0.133	-0.143	-0.108	-0.088	-0.085	-0.079	-0.075	---	---	---	---	---	---
4 10	87.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4 11	96.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6 12	2.0	-1.823	-1.200	-1.136	-0.904	-0.735	-0.591	---	---	---	---	---	---	---	---
13	8.0	-1.076	-1.130	-1.079	-0.988	-0.823	-0.733	---	---	---	---	---	---	---	---
14	15.0	-1.795	-1.361	-1.293	-1.005	-0.803	-0.693	---	---	---	---	---	---	---	---
15	27.5	-1.795	-1.361	-1.293	-1.005	-0.803	-0.693	---	---	---	---	---	---	---	---
16	40.0	-1.394	-1.262	-1.167	-0.943	-0.860	-0.761	---	---	---	---	---	---	---	---
17	50.0	-1.365	-1.262	-1.167	-0.943	-0.860	-0.761	---	---	---	---	---	---	---	---
18	59.0	-1.260	-1.262	-1.167	-0.943	-0.860	-0.761	---	---	---	---	---	---	---	---
19	67.5	-1.180	-1.267	-1.177	-0.903	-0.812	-0.710	---	---	---	---	---	---	---	---
20	77.5	-0.975	-1.117	-1.090	-0.895	-0.817	-0.710	---	---	---	---	---	---	---	---
21	86.0	-0.04	-0.005	-0.005	-0.005	-0.179	-0.263	-0.436	---	---	---	---	---	---	---
22	95.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6 23	2.0	-1.367	-0.981	-0.774	-0.582	-0.454	-0.318	---	---	---	---	---	---	---	---
24	8.0	-0.937	-1.077	-0.806	-0.733	-0.615	-0.500	---	---	---	---	---	---	---	---
25	15.0	-0.661	-1.014	-0.890	-0.762	-0.696	-0.593	---	---	---	---	---	---	---	---
26	27.5	-0.570	-0.860	-0.910	-0.812	-0.736	-0.633	---	---	---	---	---	---	---	---
27	40.0	-0.503	-0.643	-0.826	-0.796	-0.686	-0.596	---	---	---	---	---	---	---	---
28	50.0	-0.512	-0.659	-0.845	-0.697	-0.615	-0.500	---	---	---	---	---	---	---	---
29	59.0	-0.337	-0.377	-0.422	-0.640	-0.817	-0.836	---	---	---	---	---	---	---	---
30	77.5	-0.121	-0.111	-0.154	-0.171	-0.197	-0.217	---	---	---	---	---	---	---	---
31	87.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
32	96.0	-0.005	-0.016	-0.016	-0.024	-0.035	-0.050	---	---	---	---	---	---	---	---
33	95.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6 34	2.0	-1.098	-0.913	-0.709	-0.555	-0.440	-0.338	---	---	---	---	---	---	---	---
35	15.0	-0.608	-0.865	-0.825	-0.705	-0.609	-0.507	---	---	---	---	---	---	---	---
36	27.5	-0.567	-0.767	-0.837	-0.760	-0.680	-0.594	---	---	---	---	---	---	---	---
37	40.0	-0.507	-0.647	-0.761	-0.704	-0.607	-0.507	---	---	---	---	---	---	---	---
38	50.0	-0.436	-0.666	-0.740	-0.698	-0.607	-0.508	---	---	---	---	---	---	---	---
39	59.0	-0.308	-0.500	-0.676	-0.697	-0.710	-0.697	---	---	---	---	---	---	---	---
40	67.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
41	77.5	-0.133	-0.145	-0.136	-0.202	-0.242	-0.268	---	---	---	---	---	---	---	---
42	87.5	-0.026	-0.031	-0.013	-0.058	-0.078	-0.175	---	---	---	---	---	---	---	---
43	94.2	0.033	0.027	0.028	0.038	0.038	0.043	0.016	0.013	0.016	0.016	0.016	0.016	0.016	0.016
6 44	2.0	-1.127	-0.973	-0.748	-0.618	-0.462	---	---	---	---	---	---	---	---	---
45	8.0	-0.516	-1.023	-0.814	-0.756	-0.620	---	---	---	---	---	---	---	---	---
46	15.0	-0.569	-0.896	-0.814	-0.756	-0.618	---	---	---	---	---	---	---	---	---
47	27.5	-0.523	-0.711	-0.806	-0.760	-0.613	---	---	---	---	---	---	---	---	---
48	40.0	-0.481	-0.566	-0.632	-0.673	-0.703	---	---	---	---	---	---	---	---	---
49	50.0	-0.409	-0.499	-0.566	-0.678	-0.729	---	---	---	---	---	---	---	---	---
50	59.0	-0.306	-0.366	-0.469	-0.539	-0.717	---	---	---	---	---	---	---	---	---
51	67.5	-0.238	-0.240	-0.305	-0.303	-0.430	---	---	---	---	---	---	---	---	---
52	77.5	-0.180	-0.177	-0.136	-0.133	-0.165	---	---	---	---	---	---	---	---	---
53	86.0	0.013	0.018	0.036	0.030	0.123	---	---	---	---	---	---	---	---	---
54	95.5	0.087	0.049	0.049	0.055	0.055	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
6 55	2.0	-1.059	-0.950	-0.789	-0.621	-0.473	---	---	---	---	---	---	---	---	---
56	8.0	-0.769	-1.006	-0.841	-0.738	-0.626	---	---	---	---	---	---	---	---	---
57	15.0	-0.573	-0.870	-0.787	-0.747	-0.638	---	---	---	---	---	---	---	---	---
58	27.5	-0.491	-0.656	-0.789	-0.748	-0.624	---	---	---	---	---	---	---	---	---
59	40.0	-0.450	-0.564	-0.707	-0.677	-0.578	---	---	---	---	---	---	---	---	---
60	50.0	-0.360	-0.499	-0.695	-0.700	-0.670	---	---	---	---	---	---	---	---	---
61	59.0	-0.299	-0.314	-0.456	-0.510	-0.687	---	---	---	---	---	---	---	---	---
62	67.5	-0.180	-0.208	-0.201	-0.274	-0.436	---	---	---	---	---	---	---	---	---
63	77.5	0.001	0.004	0.004	0.008	0.217	---	---	---	---	---	---	---	---	---
64	86.0	0.033	0.019	0.025	0.025	0.100	---	---	---	---	---	---	---	---	---
65	2.0	-0.905	-0.814	-0.789	-0.571	-0.456	---	---	---	---	---	---	---	---	---
66	8.0	-0.680	-0.841	-0.793	-0.663	-0.523	---	---	---	---	---	---	---	---	---
67	15.0	-0.518	-0.684	-0.727	-0.602	-0.475	---	---	---	---	---	---	---	---	---
68	27.5	-0.449	-0.607	-0.706	-0.673	-0.521	---	---	---	---	---	---	---	---	---
69	40.0	-0.423	-0.554	-0.660	-0.660	-0.642	---	---	---	---	---	---	---	---	---
70	50.0	-0.349	-0.460	-0.610	-0.619	-0.589	---	---	---	---	---	---	---	---	---
71	59.0	-0.262	-0.260	-0.350	-0.361	-0.518	---	---	---	---	---	---	---	---	---
72	67.5	-0.146	-0.173	-0.168	-0.266	-0.436	---	---	---	---	---	---	---	---	---
73	77.5	0.006	0.001	0.003	0.030	0.126	---	---	---	---	---	---	---	---	---
74	87.5	0.060	0.015	0.014	0.029	0.048	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
75	95.5	0.071	0.075	0.078	0.078	0.086	0.086	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.087
76	2.0	-0.739	-0.749	-0.663	-0.515	-0.391	---	---	---	---	---	---	---	---	---
77	8.0	-0.541	-0.710	-0.610	-0.509	---	---	---	---	---	---	---	---	---	---
78	15.0	-0.438	-0.576	-0.527	-0.522	-0.475	---	---	---	---	---	---	---	---	---
79	27.5	-0.383	-0.494	-0.576	-0.540	-0.490	---	---	---	---	---	---	---	---	---
80	40.0	-0.356	-0.459	-0.511	-0.597	-0.448	---	---	---	---	---	---	---	---	---
81	50.0	-0.310	-0.403	-0.485	-0.505	-0.446	---	---	---	---	---	---	---	---	---
82	59.0	-0.226	-0.323	-0.368	-0.420	-0.445	---	---	---	---	---	---	---	---	---
83	67.5	-0.139	-0.170	-0.194	-0.212	-0.273	---	---	---	---	---	---	---	---	---
84	77.5	0.001	0.018	0.036	0.040	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
85	86.0	0.042	0.018	0.018	0.026	0.040	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
86	94.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 62

$$[\alpha = -30^\circ, b_{\text{ch}} = -0.0^\circ, \alpha = T^\circ]$$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE							
		Mach Number						Mach Number							
		0.60	0.80	0.85	0.89	0.92	0.96			0.60	0.80	0.85	0.89	0.92	0.96
A 1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 2	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 3	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 4	22.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 5	40.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 6	50.0	-0.140	-0.259	-0.294	-0.299	-0.294	-0.288	-0.204	-0.174	-	-	-	-	-	-
A 7	59.0	-0.145	-0.259	-0.271	-0.277	-0.271	-0.264	-0.170	-0.134	-	-	-	-	-	-
A 8	67.5	-0.148	-0.250	-0.260	-0.277	-0.271	-0.264	-0.168	-0.132	-	-	-	-	-	-
A 9	77.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 10	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A 11	96.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B12	2.0	-0.08	-1.403	-1.270	-1.150	-1.089	-1.004	-	-	-	-	-	-	-	-
B13	8.0	-0.071	-1.408	-1.198	-1.084	-0.977	-0.917	-	-	-	-	-	-	-	-
B14	15.0	-0.065	-1.400	-1.090	-0.984	-0.875	-0.810	-	-	-	-	-	-	-	-
B15	22.5	-0.063	-1.401	-1.087	-0.980	-0.873	-0.810	-	-	-	-	-	-	-	-
B16	40.0	-0.062	-1.402	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
B17	50.0	-0.067	-1.401	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
B18	59.0	-0.069	-1.401	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
B19	67.5	-0.068	-1.401	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
B20	77.5	-0.067	-1.401	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
B21	86.0	-0.067	-1.401	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
B22	95.3	-0.068	-1.401	-1.086	-0.976	-0.869	-0.806	-	-	-	-	-	-	-	-
C23	2.0	-1.417	-1.480	-1.207	-1.046	-0.861	-0.742	-	-	-	-	-	-	-	-
C24	8.0	-1.411	-1.481	-1.211	-1.041	-0.860	-0.740	-	-	-	-	-	-	-	-
C25	15.0	-1.406	-1.481	-1.216	-1.041	-0.858	-0.737	-	-	-	-	-	-	-	-
C26	22.5	-1.403	-1.481	-1.216	-1.041	-0.856	-0.737	-	-	-	-	-	-	-	-
C27	40.0	-1.401	-1.481	-1.216	-1.041	-0.854	-0.737	-	-	-	-	-	-	-	-
C28	50.0	-1.401	-1.481	-1.216	-1.041	-0.853	-0.737	-	-	-	-	-	-	-	-
C29	59.0	-1.401	-1.481	-1.216	-1.041	-0.852	-0.737	-	-	-	-	-	-	-	-
C30	67.5	-1.401	-1.481	-1.216	-1.041	-0.851	-0.737	-	-	-	-	-	-	-	-
C31	77.5	-1.401	-1.481	-1.216	-1.041	-0.850	-0.737	-	-	-	-	-	-	-	-
C32	86.0	-1.401	-1.481	-1.216	-1.041	-0.850	-0.737	-	-	-	-	-	-	-	-
C33	95.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D34	2.0	-0.096	-1.407	-1.137	-0.996	-0.795	-0.667	-	-	-	-	-	-	-	-
D35	8.0	-0.091	-1.407	-1.137	-0.996	-0.795	-0.667	-	-	-	-	-	-	-	-
D36	15.0	-0.089	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
D37	22.5	-0.089	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
D38	40.0	-0.088	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
D39	50.0	-0.088	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
D40	67.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D41	77.5	-0.088	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
D42	87.5	-0.088	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
D43	95.3	-0.088	-1.406	-1.138	-0.995	-0.795	-0.667	-	-	-	-	-	-	-	-
E44	2.0	-1.406	-1.482	-1.201	-1.046	-0.867	-0.742	-	-	-	-	-	-	-	-
E45	8.0	-1.409	-1.482	-1.200	-1.046	-0.866	-0.742	-	-	-	-	-	-	-	-
E46	15.0	-1.408	-1.481	-1.201	-1.046	-0.865	-0.742	-	-	-	-	-	-	-	-
E47	22.5	-1.408	-1.481	-1.201	-1.046	-0.864	-0.742	-	-	-	-	-	-	-	-
E48	40.0	-1.408	-1.481	-1.201	-1.046	-0.863	-0.742	-	-	-	-	-	-	-	-
E49	50.0	-1.408	-1.481	-1.201	-1.046	-0.863	-0.742	-	-	-	-	-	-	-	-
E50	59.0	-1.408	-1.481	-1.201	-1.046	-0.862	-0.742	-	-	-	-	-	-	-	-
E51	67.5	-1.408	-1.481	-1.201	-1.046	-0.862	-0.742	-	-	-	-	-	-	-	-
E52	77.5	-1.408	-1.481	-1.201	-1.046	-0.862	-0.742	-	-	-	-	-	-	-	-
E53	86.0	-0.084	-0.949	-0.377	-0.264	-0.202	-0.163	-	-	-	-	-	-	-	-
E54	95.5	-0.087	-0.947	-0.376	-0.263	-0.201	-0.162	-	-	-	-	-	-	-	-
F55	2.0	-1.417	-1.482	-1.201	-1.046	-0.862	-0.742	-	-	-	-	-	-	-	-
F56	8.0	-1.411	-1.481	-1.200	-1.046	-0.861	-0.742	-	-	-	-	-	-	-	-
F57	15.0	-1.409	-1.481	-1.200	-1.046	-0.860	-0.742	-	-	-	-	-	-	-	-
F58	22.5	-1.408	-1.481	-1.200	-1.046	-0.859	-0.742	-	-	-	-	-	-	-	-
F59	40.0	-1.408	-1.481	-1.200	-1.046	-0.858	-0.742	-	-	-	-	-	-	-	-
F60	50.0	-1.408	-1.481	-1.200	-1.046	-0.857	-0.742	-	-	-	-	-	-	-	-
F61	59.0	-1.408	-1.481	-1.200	-1.046	-0.856	-0.742	-	-	-	-	-	-	-	-
F62	67.5	-1.408	-1.481	-1.200	-1.046	-0.855	-0.742	-	-	-	-	-	-	-	-
F63	77.5	-1.408	-1.481	-1.200	-1.046	-0.854	-0.742	-	-	-	-	-	-	-	-
F64	86.0	-0.084	-0.947	-0.377	-0.263	-0.201	-0.162	-	-	-	-	-	-	-	-
G65	2.0	-1.418	-1.482	-1.201	-1.047	-0.862	-0.742	-	-	-	-	-	-	-	-
G66	8.0	-1.412	-1.481	-1.201	-1.047	-0.861	-0.742	-	-	-	-	-	-	-	-
G67	15.0	-1.409	-1.481	-1.201	-1.047	-0.860	-0.742	-	-	-	-	-	-	-	-
G68	22.5	-1.408	-1.481	-1.201	-1.047	-0.859	-0.742	-	-	-	-	-	-	-	-
G69	40.0	-1.408	-1.481	-1.201	-1.047	-0.858	-0.742	-	-	-	-	-	-	-	-
G70	50.0	-1.408	-1.481	-1.201	-1.047	-0.857	-0.742	-	-	-	-	-	-	-	-
G71	59.0	-1.408	-1.481	-1.201	-1.047	-0.856	-0.742	-	-	-	-	-	-	-	-
G72	67.5	-1.408	-1.481	-1.201	-1.047	-0.855	-0.742	-	-	-	-	-	-	-	-
G73	77.5	-1.408	-1.481	-1.201	-1.047	-0.854	-0.742	-	-	-	-	-	-	-	-
G74	87.5	-1.408	-1.481	-1.201	-1.047	-0.853	-0.742	-	-	-	-	-	-	-	-
G75	96.0	-0.084	-0.947	-0.377	-0.263	-0.201	-0.162	-	-	-	-	-	-	-	-
H76	2.0	-1.418	-1.481	-1.201	-1.047	-0.853	-0.742	-	-	-	-	-	-	-	-
H77	8.0	-1.412	-1.481	-1.201	-1.047	-0.852	-0.742	-	-	-	-	-	-	-	-
H78	15.0	-1.409	-1.481	-1.201	-1.047	-0.851	-0.742	-	-	-	-	-	-	-	-
H79	22.5	-1.408	-1.481	-1.201	-1.047	-0.850	-0.742	-	-	-	-	-	-	-	-
H80	40.0	-1.408	-1.481	-1.201	-1.047	-0.849	-0.742	-	-	-	-	-	-	-	-
H81	50.0	-1.408	-1.481	-1.201	-1.047	-0.848	-0.742	-	-	-	-	-	-	-	-
H82	59.0	-1.408	-1.481	-1.201	-1.047	-0.847	-0.742	-	-	-	-	-	-	-	-
H83	67.5	-1.408	-1.481	-1.201	-1.047	-0.846	-0.742	-	-	-	-	-	-	-	-
H84	77.5	-1.408	-1.481	-1.201	-1.047	-0.845	-0.742	-	-	-	-	-	-	-	-
H85	86.0	-1.408	-1.481	-1.201	-1.047	-0.844	-0.742	-	-	-	-	-	-	-	-
H86	94.2	.053	-	-	-	-	-	-	-	-	-	-	-	-	-

CONFIDENTIAL



TABLE 63

 $[A = -30^\circ, \delta_{\infty} = 5.0^\circ, \alpha = -2^\circ]$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE				LOWER SURFACE			
		Mach Number				Mach Number			
		0.60	0.80	0.85	0.88	0.60	0.80	0.85	0.88
A 1	2.0	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--
4	25.0	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--
6	50.0	-0.191	-0.095	-0.235	-0.218	--	--	--	--
7	56.0	-0.157	-0.177	-0.171	-0.174	--	--	--	--
8	67.5	-0.098	-0.094	-0.092	-0.091	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--
B12	2.0	.287	.118	.109	.105	--	--	--	--
13	6.0	.098	.095	.093	.096	--	--	--	--
14	15.0	-.112	-.157	-.165	-.189	--	--	--	--
15	27.5	-.202	-.290	-.349	-.356	--	--	--	--
16	40.0	-.355	-.313	-.314	-.314	--	--	--	--
17	50.0	-.244	-.113	-.149	-.169	--	--	--	--
18	59.0	-.205	-.129	-.100	-.099	--	--	--	--
19	67.5	-.179	-.119	-.099	-.095	--	--	--	--
20	77.5	-.166	-.106	-.092	-.093	--	--	--	--
21	86.0	-.093	-.097	-.095	-.096	--	--	--	--
22	95.5	--	--	--	--	--	--	--	--
C23	2.0	.376	.143	.133	.142	--	--	--	--
24	6.0	.107	.140	.151	.142	--	--	--	--
25	15.0	-.062	-.087	-.087	-.080	--	--	--	--
26	24.0	-.140	-.200	-.202	-.172	--	--	--	--
27	35.0	-.266	-.317	-.317	-.309	--	--	--	--
28	40.0	-.282	-.323	-.306	-.294	--	--	--	--
29	50.0	-.223	-.282	-.282	-.284	--	--	--	--
30	59.0	-.164	-.208	-.208	-.200	--	--	--	--
31	67.5	-.071	-.077	-.082	-.083	--	--	--	--
32	77.5	-.038	-.038	-.040	-.040	--	--	--	--
33	86.0	--	--	--	--	--	--	--	--
D4	2.0	.193	.176	.166	.198	--	--	--	--
45	6.0	.044	.068	.086	.106	--	--	--	--
46	15.0	-.117	-.133	-.127	-.115	--	--	--	--
47	27.5	-.212	-.263	-.277	-.278	--	--	--	--
48	40.0	-.273	-.305	-.305	-.316	--	--	--	--
49	50.0	-.270	-.307	-.307	-.300	--	--	--	--
50	59.0	-.197	-.207	-.195	-.193	--	--	--	--
51	67.5	-.087	-.087	-.090	-.090	--	--	--	--
52	77.5	-.125	-.178	-.047	-.046	--	--	--	--
53	86.0	.123	.122	.118	.109	--	--	--	--
54	95.5	.070	.067	.067	.062	--	--	--	--
F44	2.0	.383	.130	.150	.170	--	--	--	--
45	6.0	.044	.068	.086	.106	--	--	--	--
46	15.0	-.117	-.133	-.127	-.115	--	--	--	--
47	27.5	-.212	-.263	-.277	-.278	--	--	--	--
48	40.0	-.273	-.305	-.305	-.316	--	--	--	--
49	50.0	-.270	-.307	-.307	-.300	--	--	--	--
50	59.0	-.197	-.207	-.195	-.193	--	--	--	--
51	67.5	-.087	-.087	-.090	-.090	--	--	--	--
52	77.5	-.125	-.178	-.047	-.046	--	--	--	--
53	86.0	.123	.122	.118	.109	--	--	--	--
54	95.5	.070	.067	.067	.062	--	--	--	--
F55	2.0	.279	.108	.151	.171	--	--	--	--
56	6.0	.041	.067	.087	.107	--	--	--	--
57	15.0	-.117	-.119	-.119	-.105	--	--	--	--
58	24.0	-.202	-.260	-.270	-.268	--	--	--	--
59	45.0	-.292	-.362	-.366	-.349	--	--	--	--
60	50.0	-.283	-.367	-.367	-.343	--	--	--	--
61	59.0	-.229	-.302	-.305	-.282	--	--	--	--
62	67.5	-.098	-.098	-.098	-.098	--	--	--	--
63	86.0	-.060	-.053	-.053	-.049	--	--	--	--
64	95.5	-.060	-.053	-.053	-.049	--	--	--	--
H65	2.0	.290	.120	.173	.195	--	--	--	--
66	6.0	.047	.068	.083	.103	--	--	--	--
67	15.0	-.105	-.103	-.094	-.079	--	--	--	--
68	27.5	-.209	-.261	-.267	-.263	--	--	--	--
69	40.0	-.276	-.343	-.373	-.351	--	--	--	--
70	50.0	-.269	-.346	-.364	-.340	--	--	--	--
71	59.0	-.206	-.294	-.319	-.304	--	--	--	--
72	67.5	-.072	-.070	-.065	-.061	--	--	--	--
73	86.0	-.035	-.035	-.035	-.035	--	--	--	--
74	95.5	-.035	-.035	-.035	-.035	--	--	--	--
75	96.5	.077	.119	.051	.049	--	--	--	--
H76	2.0	.261	.115	.137	.160	--	--	--	--
77	6.0	.041	.077	.095	.117	--	--	--	--
78	15.0	-.093	-.097	-.087	-.058	--	--	--	--
79	27.5	-.184	-.203	-.203	-.190	--	--	--	--
80	40.0	-.249	-.304	-.326	-.303	--	--	--	--
81	50.0	-.239	-.311	-.347	-.317	--	--	--	--
82	59.0	-.187	-.246	-.269	-.249	--	--	--	--
83	67.5	-.069	-.077	-.077	-.077	--	--	--	--
84	86.0	-.035	-.035	-.035	-.035	--	--	--	--
85	94.0	-.077	.119	.051	.049	--	--	--	--

CONFIDENTIAL



1015

$$\left[\Lambda = -30^\circ, \beta_{\text{ext}} = 5.0^\circ, \alpha = 0^\circ \right]$$

~~CONFIDENTIAL~~

UPPER SURFACE		CONFIDENTIAL						LOWER SURFACE							
Tube	Percent chord	Mach Number						Tube	Percent chord	Mach Number					
		0.60	0.80	0.85	0.89	0.925	0.95			0.60	0.80	0.85	0.89	0.925	0.95
A	2.0	-	-	-	-	-	-	86	3.0	-	-	-	-	-	-
	6.0	-	-	-	-	-	-	87	10.0	-	-	-	-	-	-
	12.0	-	-	-	-	-	-	88	14.0	-	-	-	-	-	-
	18.0	-	-	-	-	-	-	89	41.0	-	-	-	-	-	-
	24.0	-	-	-	-	-	-	90	54.5	-0.016	-0.016	-0.101	-0.019	-0.079	-0.057
	30.0	-0.262	-0.236	-0.206	-0.186	-0.161	-0.131	91	64.5	-0.016	-0.016	-0.021	-0.016	-0.075	-0.046
	36.0	-0.179	-0.180	-0.173	-0.166	-0.160	-0.152	92	72.5	-0.016	-0.016	-0.020	-0.016	-0.076	-0.046
	42.0	-0.114	-0.108	-0.096	-0.081	-0.071	-0.062	93	64.0	-	-	-	-	-	-
	48.0	-	-	-	-	-	-	94	94.0	-	-	-	-	-	-
	54.0	-	-	-	-	-	-								
11	2.0	-	-	-	-	-	-	95	3.0	-1.30	-1.05	-0.36	-0.25	-0.01	-0.25
	6.0	-	-	-	-	-	-	96	10.0	-1.41	-1.09	-0.38	-0.24	-0.01	-0.25
	12.0	-	-	-	-	-	-	97	25.0	-1.48	-1.25	-0.45	-0.32	-0.01	-0.47
	18.0	-	-	-	-	-	-	98	41.0	-1.50	-1.28	-0.47	-0.34	-0.01	-0.47
	24.0	-	-	-	-	-	-	99	55.5	-1.57	-1.37	-0.52	-0.39	-0.01	-0.52
	30.0	-	-	-	-	-	-	100	64.5	-0.95	-1.04	-0.93	-0.68	-0.01	-0.92
	36.0	-	-	-	-	-	-	101	72.5	-0.99	-1.07	-0.94	-0.70	-0.01	-0.92
	42.0	-	-	-	-	-	-	102	66.5	-0.91	-0.07	-0.04	-0.02	-0.01	-0.05
	48.0	-	-	-	-	-	-	103	94.5	-1.32	-1.47	-1.51	-1.61	-0.172	-0.055
	54.0	-	-	-	-	-	-								
112	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	104	3.0	-0.06	-0.07	-0.01	-0.01	-0.105	-0.071
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	105	10.0	-1.30	-1.05	-0.36	-0.25	-0.217	-0.160
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	106	25.0	-1.30	-1.05	-0.36	-0.25	-0.308	-0.218
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	107	41.0	-1.30	-1.05	-0.36	-0.25	-0.413	-0.318
	24.0	-0.350	-0.350	-0.350	-0.350	-0.350	-0.350	108	55.5	-1.30	-1.05	-0.36	-0.25	-0.522	-0.422
	30.0	-0.380	-0.380	-0.380	-0.380	-0.380	-0.380	109	64.5	-1.30	-1.05	-0.36	-0.25	-0.630	-0.530
	36.0	-0.413	-0.413	-0.413	-0.413	-0.413	-0.413	110	72.5	-0.001	-0.007	-0.005	-0.010	-0.017	-0.219
	42.0	-0.445	-0.445	-0.445	-0.445	-0.445	-0.445	111	66.5	-0.01	-0.006	-0.013	-0.008	-0.017	-0.113
	48.0	-0.475	-0.475	-0.475	-0.475	-0.475	-0.475	112	94.5	-1.32	-1.47	-1.51	-1.61	-0.100	-0.061
	54.0	-	-	-	-	-	-								
113	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	114	3.0	-0.06	-0.07	-0.01	-0.01	-0.121	-0.120
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	115	10.0	-1.30	-1.05	-0.36	-0.25	-0.146	-0.146
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	116	25.0	-1.30	-1.05	-0.36	-0.25	-0.261	-0.200
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	117	41.0	-1.30	-1.05	-0.36	-0.25	-0.374	-0.300
	24.0	-0.350	-0.350	-0.350	-0.350	-0.350	-0.350	118	55.5	-1.30	-1.05	-0.36	-0.25	-0.484	-0.400
	30.0	-0.380	-0.380	-0.380	-0.380	-0.380	-0.380	119	64.5	-1.30	-1.05	-0.36	-0.25	-0.594	-0.500
	36.0	-0.413	-0.413	-0.413	-0.413	-0.413	-0.413	120	72.5	-0.001	-0.007	-0.005	-0.010	-0.017	-0.104
	42.0	-0.445	-0.445	-0.445	-0.445	-0.445	-0.445	121	66.5	-0.01	-0.006	-0.013	-0.008	-0.017	-0.113
	48.0	-0.475	-0.475	-0.475	-0.475	-0.475	-0.475	122	94.5	-1.32	-1.47	-1.51	-1.61	-0.052	-0.037
	54.0	-	-	-	-	-	-								
123	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	124	3.0	-0.06	-0.06	-0.01	-0.01	-0.021	-0.000
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	125	10.0	-0.05	-0.06	-0.01	-0.01	-0.023	-0.006
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	126	25.0	-1.32	-1.08	-0.38	-0.26	-0.204	-0.145
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	127	41.0	-1.32	-1.08	-0.38	-0.26	-0.312	-0.232
	24.0	-0.350	-0.350	-0.350	-0.350	-0.350	-0.350	128	55.5	-1.32	-1.08	-0.38	-0.26	-0.422	-0.332
	30.0	-0.380	-0.380	-0.380	-0.380	-0.380	-0.380	129	64.5	-1.32	-1.08	-0.38	-0.26	-0.532	-0.432
	36.0	-0.413	-0.413	-0.413	-0.413	-0.413	-0.413	130	72.5	-0.001	-0.007	-0.005	-0.010	-0.017	-0.113
	42.0	-0.445	-0.445	-0.445	-0.445	-0.445	-0.445	131	66.5	-0.01	-0.006	-0.013	-0.008	-0.017	-0.113
	48.0	-0.475	-0.475	-0.475	-0.475	-0.475	-0.475	132	94.5	-1.32	-1.47	-1.51	-1.61	-0.052	-0.037
	54.0	-	-	-	-	-	-								
133	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	134	3.0	-0.06	-0.06	-0.01	-0.01	-0.005	-0.007
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	135	10.0	-0.05	-0.06	-0.01	-0.01	-0.006	-0.006
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	136	25.0	-1.32	-1.08	-0.38	-0.26	-0.210	-0.146
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	137	41.0	-1.32	-1.08	-0.38	-0.26	-0.317	-0.236
	24.0	-0.350	-0.350	-0.350	-0.350	-0.350	-0.350	138	55.5	-1.32	-1.08	-0.38	-0.26	-0.427	-0.336
	30.0	-0.380	-0.380	-0.380	-0.380	-0.380	-0.380	139	64.5	-1.32	-1.08	-0.38	-0.26	-0.537	-0.436
	36.0	-0.413	-0.413	-0.413	-0.413	-0.413	-0.413	140	72.5	-0.001	-0.007	-0.005	-0.010	-0.017	-0.113
	42.0	-0.445	-0.445	-0.445	-0.445	-0.445	-0.445	141	66.5	-0.01	-0.006	-0.013	-0.008	-0.017	-0.113
	48.0	-0.475	-0.475	-0.475	-0.475	-0.475	-0.475	142	94.5	-1.32	-1.47	-1.51	-1.61	-0.052	-0.037
	54.0	-	-	-	-	-	-								
143	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	144	3.0	-0.06	-0.06	-0.01	-0.01	-0.005	-0.007
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	145	10.0	-0.05	-0.06	-0.01	-0.01	-0.006	-0.006
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	146	25.0	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	147	41.0	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	24.0	-0.350	-0.350	-0.350	-0.350	-0.350	-0.350	148	55.5	-0.05	-0.06	-0.01	-0.01	-0.016	-0.018
	30.0	-0.380	-0.380	-0.380	-0.380	-0.380	-0.380	149	64.5	-0.05	-0.06	-0.01	-0.01	-0.016	-0.018
	36.0	-0.413	-0.413	-0.413	-0.413	-0.413	-0.413	150	72.5	-0.05	-0.06	-0.01	-0.01	-0.016	-0.018
	42.0	-0.445	-0.445	-0.445	-0.445	-0.445	-0.445	151	66.5	-0.05	-0.06	-0.01	-0.01	-0.016	-0.018
	48.0	-0.475	-0.475	-0.475	-0.475	-0.475	-0.475	152	94.5	-0.05	-0.06	-0.01	-0.01	-0.016	-0.018
	54.0	-	-	-	-	-	-								
153	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	154	3.0	-0.06	-0.06	-0.01	-0.01	-0.005	-0.007
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	155	10.0	-0.05	-0.06	-0.01	-0.01	-0.006	-0.006
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	156	25.0	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	157	41.0	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	24.0	-0.350	-0.350	-0.350	-0.350	-0.350	-0.350	158	55.5	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	30.0	-0.380	-0.380	-0.380	-0.380	-0.380	-0.380	159	64.5	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	36.0	-0.413	-0.413	-0.413	-0.413	-0.413	-0.413	160	72.5	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	42.0	-0.445	-0.445	-0.445	-0.445	-0.445	-0.445	161	66.5	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	48.0	-0.475	-0.475	-0.475	-0.475	-0.475	-0.475	162	94.5	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	54.0	-	-	-	-	-	-								
163	2.0	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	164	3.0	-0.06	-0.06	-0.01	-0.01	-0.005	-0.007
	6.0	-0.187	-0.187	-0.187	-0.187	-0.187	-0.187	165	10.0	-0.05	-0.06	-0.01	-0.01	-0.006	-0.006
	12.0	-0.262	-0.262	-0.262	-0.262	-0.262	-0.262	166	25.0	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017
	18.0	-0.311	-0.311	-0.311	-0.311	-0.311	-0.311	167	41.0	-0.05	-0.06	-0.01	-0.01	-0.015	-0.017

CONFIDENTIAL

NACA

TABLE 6a

 $[A = -10^\circ, \alpha_n = 5.0^\circ, \alpha = 2^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE					
		cent	chord	Mach Number					Mach Number				
				0.60	0.80	0.85	0.90	0.925	0.95	0.60	0.80	0.85	0.90
A 1	8.0	--	--	--	--	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.083	-0.293	-0.396	-0.405	-0.515	-0.789	--	--	--	--	--	--
7	59.0	-0.194	-0.181	-0.145	-0.199	-0.388	-0.736	--	--	--	--	--	--
8	69.0	-0.128	-0.108	-0.091	-0.108	-0.288	-0.597	--	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--
612	2.0	-1.150	-0.391	-0.761	-0.561	-0.379	-0.753	--	--	--	--	--	--
13	8.0	-1.170	-1.426	-0.861	-0.703	-0.537	-1.021	--	--	--	--	--	--
14	15.0	-1.09	-1.093	-0.944	-0.818	-0.776	-0.986	--	--	--	--	--	--
15	24.0	-1.07	-1.076	-0.989	-0.907	-0.807	-1.078	--	--	--	--	--	--
16	34.0	-1.04	-1.027	-0.990	-0.873	-0.843	-1.044	--	--	--	--	--	--
17	50.0	-1.01	-1.007	-0.993	-0.879	-0.849	-1.014	--	--	--	--	--	--
18	59.0	-1.00	-1.007	-0.987	-0.880	-0.850	-1.005	--	--	--	--	--	--
19	67.5	-1.08	-1.079	-1.1	-1.034	-0.940	-0.807	--	--	--	--	--	--
20	77.5	-0.96	-0.976	-0.94	-0.934	-0.999	-0.896	--	--	--	--	--	--
21	86.0	-0.93	-0.943	-0.97	-0.972	-0.956	-0.974	--	--	--	--	--	--
22	95.3	--	--	--	--	--	--	--	--	--	--	--	--
623	2.0	-0.63	-0.611	-0.478	-0.310	-0.176	-1.19	--	--	--	--	--	--
24	6.0	-0.54	-0.544	-0.571	-0.447	-0.301	-1.231	--	--	--	--	--	--
25	15.0	-0.51	-0.576	-0.517	-0.402	-0.267	-1.247	--	--	--	--	--	--
26	27.5	-0.59	-0.575	-0.573	-0.570	-0.568	-1.258	--	--	--	--	--	--
27	40.0	-0.53	-0.569	-0.541	-0.478	-0.364	-1.269	--	--	--	--	--	--
28	50.0	-0.57	-0.591	-0.579	-0.486	-0.374	-1.271	--	--	--	--	--	--
29	59.0	-0.58	-0.593	-0.589	-0.497	-0.386	-1.273	--	--	--	--	--	--
30	67.5	-0.56	-0.584	-0.581	-0.498	-0.393	-1.277	--	--	--	--	--	--
31	77.5	-0.51	-0.518	-0.505	-0.426	-0.320	-1.280	--	--	--	--	--	--
32	86.0	-0.52	-0.517	-0.501	-0.423	-0.315	-1.284	--	--	--	--	--	--
33	95.3	-0.51	-0.517	-0.501	-0.423	-0.315	-1.284	--	--	--	--	--	--
634	2.0	-0.59	-0.577	-0.486	-0.319	-0.183	-1.01	--	--	--	--	--	--
35	18.0	-0.466	-0.500	-0.574	-0.406	-0.230	-1.020	--	--	--	--	--	--
36	27.5	-0.448	-0.500	-0.571	-0.411	-0.231	-1.020	--	--	--	--	--	--
37	40.0	-0.448	-0.501	-0.571	-0.412	-0.233	-1.023	--	--	--	--	--	--
38	50.0	-0.421	-0.500	-0.571	-0.412	-0.230	-1.020	--	--	--	--	--	--
39	59.0	-0.415	-0.500	-0.570	-0.412	-0.230	-1.020	--	--	--	--	--	--
40	67.5	-0.39	-0.496	-0.567	-0.402	-0.228	-1.020	--	--	--	--	--	--
41	77.5	-0.38	-0.496	-0.567	-0.402	-0.227	-1.020	--	--	--	--	--	--
42	86.0	-0.38	-0.497	-0.568	-0.403	-0.227	-1.020	--	--	--	--	--	--
43	94.2	-0.38	-0.498	-0.568	-0.403	-0.228	-1.020	--	--	--	--	--	--
644	2.0	-0.690	-0.695	-0.561	-0.395	-0.236	-1.26	--	--	--	--	--	--
45	15.0	-0.572	-0.597	-0.567	-0.404	-0.236	-1.260	--	--	--	--	--	--
46	27.5	-0.564	-0.598	-0.566	-0.406	-0.237	-1.262	--	--	--	--	--	--
47	40.0	-0.577	-0.601	-0.570	-0.409	-0.237	-1.263	--	--	--	--	--	--
48	50.0	-0.567	-0.601	-0.570	-0.409	-0.237	-1.263	--	--	--	--	--	--
49	59.0	-0.563	-0.601	-0.570	-0.409	-0.237	-1.263	--	--	--	--	--	--
50	67.5	-0.553	-0.601	-0.570	-0.409	-0.237	-1.263	--	--	--	--	--	--
51	77.5	-0.518	-0.598	-0.567	-0.407	-0.231	-1.264	--	--	--	--	--	--
52	86.0	-0.518	-0.598	-0.567	-0.407	-0.231	-1.264	--	--	--	--	--	--
53	94.2	-0.518	-0.598	-0.567	-0.407	-0.231	-1.264	--	--	--	--	--	--
655	2.0	-0.681	-0.680	-0.540	-0.381	-0.238	-1.26	--	--	--	--	--	--
55	18.0	-0.561	-0.681	-0.562	-0.381	-0.239	-1.260	--	--	--	--	--	--
57	27.5	-0.549	-0.680	-0.559	-0.380	-0.237	-1.262	--	--	--	--	--	--
58	40.0	-0.533	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
59	50.0	-0.523	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
60	59.0	-0.517	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
61	67.5	-0.511	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
62	77.5	-0.501	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
63	86.0	-0.501	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
64	94.2	-0.501	-0.680	-0.557	-0.380	-0.237	-1.263	--	--	--	--	--	--
656	2.0	-0.593	-0.560	-0.436	-0.310	-0.190	-1.18	--	--	--	--	--	--
66	15.0	-0.516	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
67	27.5	-0.498	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
68	40.0	-0.477	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
69	50.0	-0.457	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
70	59.0	-0.445	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
71	67.5	-0.436	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
72	77.5	-0.426	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
73	86.0	-0.419	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
74	94.2	-0.419	-0.593	-0.539	-0.448	-0.331	-1.181	--	--	--	--	--	--
657	2.0	-0.550	-0.500	-0.421	-0.287	-0.153	-1.15	--	--	--	--	--	--
75	15.0	-0.476	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
76	27.5	-0.454	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
77	40.0	-0.437	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
78	50.0	-0.427	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
79	59.0	-0.417	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
80	67.5	-0.407	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
81	77.5	-0.397	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
82	86.0	-0.397	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
83	94.2	-0.397	-0.550	-0.580	-0.455	-0.325	-1.151	--	--	--	--	--	--
658	2.0	-0.549	-0.500	-0.421	-0.287	-0.153	-1.15	--	--	--	--	--	--
84	46.0	-0.477	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
85	59.0	-0.467	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
86	67.5	-0.457	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
87	77.5	-0.447	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
88	86.0	-0.437	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
89	94.2	-0.437	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
659	2.0	-0.549	-0.500	-0.421	-0.287	-0.153	-1.15	--	--	--	--	--	--
90	40.0	-0.477	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
91	59.0	-0.467	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
92	67.5	-0.457	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
93	77.5	-0.447	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
94	86.0	-0.437	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
95	94.2	-0.437	-0.549	-0.587	-0.455	-0.325	-1.151	--	--	--	--	--	--
660	2.0	-0.549	-0.500	-0.421	-0.287</								

TABLE 66

 $[A = -30^\circ, b_{\alpha} = 5.0^\circ, \alpha = 1^\circ]$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
2	8.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.200	-0.404	-0.508	-0.544	-0.569	-0.595	-0.626	-0.656	-0.686	-0.716	-0.746	-0.776
7	55.0	-0.182	-0.364	-0.461	-0.501	-0.521	-0.541	-0.561	-0.581	-0.601	-0.621	-0.641	-0.661
8	67.5	-0.130	-0.264	-0.362	-0.406	-0.456	-0.496	-0.537	-0.577	-0.617	-0.657	-0.697	-0.737
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--
11	95.0	--	--	--	--	--	--	--	--	--	--	--	--
12	2.0	-1.186	-1.019	-0.979	-0.959	-0.929	-0.899	-0.869	-0.839	-0.809	-0.779	-0.749	-0.719
13	6.0	-0.149	-0.177	-0.099	-0.069	-0.039	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009
14	15.0	-0.831	-0.810	-0.682	-0.703	-0.711	-0.716	-0.716	-0.716	-0.716	-0.716	-0.716	-0.716
15	27.5	-0.618	-0.599	-0.547	-0.563	-0.584	-0.594	-0.604	-0.614	-0.624	-0.634	-0.644	-0.654
16	40.0	-0.495	-0.569	-0.516	-0.529	-0.549	-0.569	-0.589	-0.609	-0.629	-0.649	-0.669	-0.689
17	50.0	-0.376	-0.318	-0.297	-0.302	-0.302	-0.302	-0.302	-0.302	-0.302	-0.302	-0.302	-0.302
18	55.0	-0.296	-0.405	-0.450	-0.458	-0.468	-0.478	-0.488	-0.498	-0.508	-0.518	-0.528	-0.538
19	67.5	-0.193	-0.293	-0.366	-0.376	-0.386	-0.396	-0.406	-0.416	-0.426	-0.436	-0.446	-0.456
20	77.5	-0.136	-0.236	-0.336	-0.346	-0.356	-0.366	-0.376	-0.386	-0.396	-0.406	-0.416	-0.426
21	84.0	-0.031	-0.091	-0.196	-0.206	-0.216	-0.226	-0.236	-0.246	-0.256	-0.266	-0.276	-0.286
22	95.0	--	--	--	--	--	--	--	--	--	--	--	--
23	2.0	-1.453	-1.070	-0.831	-0.643	-0.493	-0.378	-0.278	-0.178	-0.078	-0.008	-0.008	-0.008
24	6.0	-0.931	-1.147	-0.948	-0.785	-0.647	-0.505	-0.365	-0.236	-0.116	-0.006	-0.006	-0.006
25	15.0	-0.703	-1.008	-0.953	-0.809	-0.689	-0.569	-0.449	-0.329	-0.209	-0.089	-0.009	-0.009
26	27.5	-0.580	-0.994	-0.921	-0.801	-0.681	-0.561	-0.441	-0.321	-0.201	-0.081	-0.001	-0.001
27	40.0	-0.456	-0.866	-0.796	-0.686	-0.566	-0.446	-0.326	-0.206	-0.086	-0.006	-0.006	-0.006
28	50.0	-0.336	-0.746	-0.676	-0.577	-0.457	-0.337	-0.217	-0.097	-0.077	-0.057	-0.037	-0.017
29	55.0	-0.290	-0.696	-0.626	-0.526	-0.406	-0.286	-0.166	-0.046	-0.026	-0.006	-0.006	-0.006
30	67.5	-0.230	-0.596	-0.527	-0.426	-0.306	-0.186	-0.066	-0.046	-0.026	-0.006	-0.006	-0.006
31	77.5	-0.187	-0.451	-0.381	-0.301	-0.201	-0.101	-0.041	-0.021	-0.011	-0.001	-0.001	-0.001
32	88.0	-0.013	-0.081	-0.041	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
33	95.0	--	--	--	--	--	--	--	--	--	--	--	--
34	2.0	-1.317	-1.000	-0.705	-0.509	-0.476	-0.375	-0.275	-0.175	-0.075	-0.005	-0.005	-0.005
35	6.0	-0.699	-1.020	-0.801	-0.650	-0.646	-0.501	-0.355	-0.215	-0.115	-0.015	-0.005	-0.005
36	27.5	-0.492	-0.861	-0.794	-0.681	-0.571	-0.431	-0.291	-0.151	-0.051	-0.011	-0.001	-0.001
37	40.0	-0.360	-0.706	-0.636	-0.526	-0.406	-0.266	-0.126	-0.026	-0.006	-0.006	-0.006	-0.006
38	50.0	-0.243	-0.594	-0.523	-0.433	-0.313	-0.173	-0.033	-0.033	-0.033	-0.033	-0.033	-0.033
39	55.0	-0.200	-0.430	-0.373	-0.313	-0.213	-0.113	-0.013	-0.013	-0.013	-0.013	-0.013	-0.013
40	67.5	--	--	--	--	--	--	--	--	--	--	--	--
41	77.5	-0.140	-0.236	-0.120	-0.063	-0.023	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
42	87.5	-0.033	-0.089	-0.009	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
43	94.0	.001	.036	.056	.080	.100	.120	.140	.160	.180	.190	.200	.210
44	2.0	-1.373	-1.119	-0.771	-0.569	-0.437	-0.337	-0.237	-0.137	-0.037	-0.007	-0.007	-0.007
45	6.0	-0.479	-1.117	-0.870	-0.700	-0.679	-0.539	-0.409	-0.279	-0.149	-0.049	-0.049	-0.049
46	15.0	-0.366	-1.103	-0.951	-0.789	-0.668	-0.528	-0.388	-0.248	-0.108	-0.008	-0.008	-0.008
47	27.5	-0.246	-0.904	-0.737	-0.604	-0.573	-0.433	-0.293	-0.153	-0.053	-0.003	-0.003	-0.003
48	40.0	-0.198	-0.746	-0.676	-0.546	-0.516	-0.376	-0.236	-0.136	-0.036	-0.006	-0.006	-0.006
49	50.0	-0.150	-0.598	-0.528	-0.433	-0.382	-0.242	-0.102	-0.002	-0.002	-0.002	-0.002	-0.002
50	55.0	-0.132	-0.500	-0.430	-0.360	-0.320	-0.180	-0.040	-0.000	-0.000	-0.000	-0.000	-0.000
51	67.5	-0.100	-0.366	-0.296	-0.226	-0.186	-0.046	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
52	77.5	-0.137	-0.236	-0.115	-0.046	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
53	88.0	-0.097	-0.096	-0.006	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
54	95.0	-0.08	0.044	0.083	0.120	0.150	0.177	0.207	0.237	0.267	0.297	0.327	0.357
55	2.0	-1.453	-1.118	-0.871	-0.677	-0.546	-0.416	-0.286	-0.156	-0.026	-0.006	-0.006	-0.006
56	6.0	-0.931	-1.136	-0.943	-0.797	-0.668	-0.538	-0.408	-0.278	-0.148	-0.018	-0.008	-0.008
57	15.0	-0.703	-1.007	-0.951	-0.807	-0.677	-0.547	-0.417	-0.287	-0.157	-0.027	-0.007	-0.007
58	27.5	-0.580	-0.994	-0.921	-0.801	-0.681	-0.551	-0.421	-0.291	-0.161	-0.031	-0.011	-0.011
59	40.0	-0.456	-0.866	-0.796	-0.686	-0.566	-0.436	-0.306	-0.206	-0.106	-0.026	-0.006	-0.006
60	50.0	-0.336	-0.746	-0.676	-0.576	-0.456	-0.326	-0.196	-0.066	-0.036	-0.016	-0.006	-0.006
61	55.0	-0.379	-0.881	-0.753	-0.624	-0.524	-0.384	-0.254	-0.124	-0.094	-0.064	-0.044	-0.024
62	67.5	-0.265	-0.359	-0.293	-0.163	-0.033	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
63	77.5	-0.200	-0.269	-0.197	-0.104	-0.034	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004
64	87.5	-0.041	-0.066	-0.020	-0.004	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
65	94.0	.000	.011	.020	.030	.040	.050	.060	.070	.080	.090	.100	.110
66	2.0	-1.249	-0.908	-0.684	-0.484	-0.354	-0.224	-0.094	-0.004	-0.004	-0.004	-0.004	-0.004
67	6.0	-0.699	-1.047	-0.873	-0.743	-0.613	-0.483	-0.353	-0.223	-0.103	-0.073	-0.043	-0.013
68	27.5	-0.547	-0.865	-0.795	-0.675	-0.545	-0.415	-0.285	-0.155	-0.035	-0.005	-0.005	-0.005
69	40.0	-0.423	-0.747	-0.677	-0.547	-0.417	-0.287	-0.157	-0.037	-0.007	-0.007	-0.007	-0.007
70	50.0	-0.300	-0.600	-0.560	-0.460	-0.330	-0.200	-0.070	-0.040	-0.010	-0.000	-0.000	-0.000
71	55.0	-0.265	-0.493	-0.426	-0.306	-0.176	-0.046	-0.016	-0.006	-0.006	-0.006	-0.006	-0.006
72	67.5	-0.201	-0.359	-0.293	-0.163	-0.033	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
73	77.5	-0.136	-0.269	-0.197	-0.104	-0.034	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004
74	87.5	-0.041	-0.066	-0.020	-0.004	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
75	94.0	.000	.017	.026	.036	.046	.056	.066	.076	.086	.096	.106	.116
76	2.0	-1.367	-0.901	-0.754	-0.554	-0.424	-0.294	-0.164	-0.034	-0.004	-0.004	-0.004	-0.004
77	6.0	-0.709	-1.059	-0.877	-0.747	-0.617	-0.487	-0.357	-0.227	-0.107	-0.077	-0.047	-0.017
78	15.0	-0.510	-0.616	-0.567	-0.439	-0.311	-0.181	-0.051	-0.021	-0.011	-0.001	-0.001	-0.001</

TABLE 67

 $[A = -30^\circ, \delta_m = 5.0^\circ, \alpha = 7^\circ]$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.90	0.95	0.96	0.60	0.80	0.85	0.90	0.95	0.96
4 1	2.0	—	—	—	—	—	—	—	—	—	—	—	—
4 2	6.0	—	—	—	—	—	—	—	—	—	—	—	—
4 3	15.0	—	—	—	—	—	—	—	—	—	—	—	—
4 4	27.5	—	—	—	—	—	—	—	—	—	—	—	—
4 5	40.0	—	—	—	—	—	—	—	—	—	—	—	—
4 6	50.0	-0.707	-0.987	-0.946	-0.970	-0.980	-0.985	—	—	—	—	—	—
4 7	58.0	-0.425	-0.585	-0.590	-0.597	-0.605	-0.612	—	—	—	—	—	—
4 8	68.0	-0.38	-0.538	-0.561	-0.593	-0.604	-0.611	—	—	—	—	—	—
4 9	77.5	—	—	—	—	—	—	—	—	—	—	—	—
4 10	87.5	—	—	—	—	—	—	—	—	—	—	—	—
4 11	96.0	—	—	—	—	—	—	—	—	—	—	—	—
5 12	2.0	-0.633	-0.946	-0.946	-0.946	-0.947	-0.947	—	—	—	—	—	—
5 13	6.0	-0.604	-0.926	-0.926	-0.926	-0.926	-0.926	—	—	—	—	—	—
5 14	15.0	-0.617	-0.926	-0.926	-0.926	-0.926	-0.926	—	—	—	—	—	—
5 15	27.5	-0.606	-0.926	-0.926	-0.926	-0.926	-0.926	—	—	—	—	—	—
5 16	40.0	-0.603	-0.618	-0.618	-0.620	-0.620	-0.620	—	—	—	—	—	—
5 17	50.0	-0.603	-0.618	-0.618	-0.620	-0.620	-0.620	—	—	—	—	—	—
5 18	58.0	-0.607	-0.609	-0.617	-0.617	-0.617	-0.617	—	—	—	—	—	—
5 19	68.0	-0.608	-0.592	-0.604	-0.604	-0.604	-0.604	—	—	—	—	—	—
5 20	77.5	-0.608	-0.576	-0.590	-0.590	-0.590	-0.590	—	—	—	—	—	—
5 21	86.0	-0.188	-0.367	-0.432	-0.477	-0.511	-0.611	—	—	—	—	—	—
5 22	95.3	—	—	—	—	—	—	—	—	—	—	—	—
5 23	2.0	-1.389	-1.393	-1.394	-1.394	-1.394	-0.981	—	—	—	—	—	—
5 24	6.0	-1.373	-1.398	-1.398	-1.398	-1.398	-0.976	—	—	—	—	—	—
5 25	15.0	-1.378	-1.398	-1.398	-1.398	-1.398	-0.977	—	—	—	—	—	—
5 26	27.5	-0.687	-0.780	-0.780	-0.780	-0.780	-0.977	—	—	—	—	—	—
5 27	40.0	-0.706	-0.789	-0.790	-0.790	-0.790	-0.976	—	—	—	—	—	—
5 28	50.0	-0.706	-0.789	-0.790	-0.790	-0.790	-0.976	—	—	—	—	—	—
5 29	58.0	-0.705	-0.785	-0.786	-0.786	-0.786	-0.976	—	—	—	—	—	—
5 30	68.0	-0.705	-0.785	-0.786	-0.786	-0.786	-0.976	—	—	—	—	—	—
5 31	77.5	-0.705	-0.785	-0.786	-0.786	-0.786	-0.976	—	—	—	—	—	—
5 32	86.0	-0.109	-0.292	-0.317	-0.317	-0.317	-0.976	—	—	—	—	—	—
5 33	95.3	—	—	—	—	—	—	—	—	—	—	—	—
5 34	2.0	-1.934	-1.417	-1.163	-0.964	-0.815	-0.606	—	—	—	—	—	—
5 35	15.0	-0.959	-1.111	-1.119	-1.010	-0.895	-0.786	—	—	—	—	—	—
5 36	27.5	-0.600	-1.203	-1.087	-0.934	-0.930	-0.899	—	—	—	—	—	—
5 37	40.0	-0.596	-0.814	-1.016	-1.000	-0.977	-0.882	—	—	—	—	—	—
5 38	50.0	-0.595	-0.813	-0.968	-0.962	-0.962	-0.962	—	—	—	—	—	—
5 39	58.0	-0.595	-0.812	-0.747	-0.701	-0.804	-0.804	—	—	—	—	—	—
5 40	68.0	-0.595	-0.812	-0.747	-0.701	-0.804	-0.804	—	—	—	—	—	—
5 41	77.5	-0.595	-0.812	-0.747	-0.701	-0.804	-0.804	—	—	—	—	—	—
5 42	86.0	-0.709	-0.269	-0.110	-0.216	-0.277	-0.269	—	—	—	—	—	—
5 43	94.2	-0.050	-0.136	-0.112	-0.188	-0.046	-0.296	—	—	—	—	—	—
5 44	2.0	-1.810	-1.459	-1.243	-1.023	-0.807	-0.612	—	—	—	—	—	—
5 45	6.0	-1.865	-1.409	-1.272	-1.112	-0.864	-0.654	—	—	—	—	—	—
5 46	15.0	-1.819	-1.406	-1.206	-1.064	-0.930	-0.895	—	—	—	—	—	—
5 47	27.5	-1.819	-1.406	-1.304	-1.120	-0.930	-0.895	—	—	—	—	—	—
5 48	40.0	-1.819	-1.406	-1.304	-1.120	-0.930	-0.895	—	—	—	—	—	—
5 49	50.0	-1.819	-1.406	-1.304	-1.120	-0.930	-0.895	—	—	—	—	—	—
5 50	58.0	-1.819	-1.406	-1.304	-1.120	-0.930	-0.895	—	—	—	—	—	—
5 51	68.0	-1.819	-1.406	-1.304	-1.120	-0.930	-0.895	—	—	—	—	—	—
5 52	77.5	-1.819	-1.406	-1.304	-1.120	-0.930	-0.895	—	—	—	—	—	—
5 53	86.0	-0.053	-0.103	-0.371	-0.371	-0.371	-0.615	—	—	—	—	—	—
5 54	95.3	-0.049	-0.096	-0.366	-0.366	-0.366	-0.626	—	—	—	—	—	—
5 55	2.0	-1.818	-1.417	-1.243	-1.023	-0.807	-0.612	—	—	—	—	—	—
5 56	6.0	-1.795	-1.406	-1.236	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 57	15.0	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 58	27.5	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 59	40.0	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 60	50.0	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 61	58.0	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 62	68.0	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 63	77.5	-1.816	-1.406	-1.193	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 64	86.0	-0.053	-0.079	-0.366	-0.366	-0.366	-0.644	—	—	—	—	—	—
5 65	94.2	-0.049	-0.074	-0.360	-0.360	-0.360	-0.644	—	—	—	—	—	—
5 66	2.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 67	6.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 68	15.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 69	27.5	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 70	40.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 71	50.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 72	58.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 73	68.0	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 74	77.5	-1.819	-1.406	-1.231	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 75	86.0	-0.049	-0.061	-0.356	-0.356	-0.356	-0.644	—	—	—	—	—	—
5 76	2.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 77	6.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 78	15.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 79	27.5	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 80	40.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 81	50.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 82	58.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 83	68.0	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 84	77.5	-1.820	-1.406	-1.230	-1.070	-0.864	-0.644	—	—	—	—	—	—
5 85	86.0	-0.049	-0.051	-0.340	-0.340	-0.340	-0.644	—	—	—	—	—	—
5 86	94.2	—	—	—	—	—	—	—	—	—	—	—	—

CONFIDENTIAL

NACA

TABLE 68

 $\Delta = -30^\circ, \delta_{\alpha_0} = 10.0^\circ, \alpha = -6^\circ$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE				LOWER SURFACE			
		Mach Number				Mach Number			
	cent	chord	0.60	0.80	0.85	0.90	0.60	0.80	0.85
A 1	2.0	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--
3	10.0	--	--	--	--	--	--	--	--
4	14.0	--	--	--	--	--	--	--	--
5	18.0	--	--	--	--	--	--	--	--
6	22.0	-0.190	-0.223	-0.223	-0.193	--	--	--	--
7	26.0	-0.167	-0.181	-0.170	-0.179	--	--	--	--
8	30.0	-0.105	-0.096	-0.096	-0.095	--	--	--	--
9	34.0	--	--	--	--	--	--	--	--
10	38.0	--	--	--	--	--	--	--	--
11	42.0	--	--	--	--	--	--	--	--
612	2.0	.150	.191	.100	.001	--	--	--	--
13	6.0	.067	.069	.070	.075	--	--	--	--
14	10.0	.141	.185	.203	.200	--	--	--	--
15	14.0	.200	.300	.350	.416	--	--	--	--
16	18.0	.260	.343	.407	.546	--	--	--	--
17	22.0	.361	.318	.357	.406	--	--	--	--
18	26.0	.393	.261	.301	.456	--	--	--	--
19	30.0	.415	.287	.317	.486	--	--	--	--
20	34.0	.455	.316	.325	.486	--	--	--	--
21	38.0	.466	.357	.367	.476	--	--	--	--
22	42.0	--	--	--	--	--	--	--	--
613	2.0	.137	.176	.114	.022	--	--	--	--
24	6.0	.065	.111	.111	.114	--	--	--	--
25	10.0	.113	.111	.099	.091	--	--	--	--
26	14.0	.214	.260	.300	.369	--	--	--	--
27	18.0	.275	.345	.381	.443	--	--	--	--
28	22.0	.396	.337	.396	.471	--	--	--	--
29	26.0	.416	.387	.337	.481	--	--	--	--
30	30.0	.475	.316	.235	.267	--	--	--	--
31	34.0	.486	.357	.317	.387	--	--	--	--
32	38.0	.503	.381	.363	.486	--	--	--	--
33	42.0	--	--	--	--	--	--	--	--
614	2.0	.065	.135	.162	.178	--	--	--	--
35	6.0	.113	.129	.097	.096	--	--	--	--
36	10.0	.200	.361	.253	.360	--	--	--	--
37	14.0	.276	.345	.395	.434	--	--	--	--
38	18.0	.379	.345	.397	.404	--	--	--	--
39	22.0	.420	.378	.331	.447	--	--	--	--
40	26.0	--	--	--	--	--	--	--	--
41	30.0	.105	.053	.071	.110	--	--	--	--
42	34.0	.001	.001	.005	.000	--	--	--	--
43	38.0	.065	.037	.041	.049	--	--	--	--
44	42.0	--	--	--	--	--	--	--	--
45	6.0	.005	.016	.016	.076	--	--	--	--
46	10.0	.157	.176	.169	.180	--	--	--	--
47	14.0	.232	.305	.320	.396	--	--	--	--
48	18.0	.306	.407	.362	.473	--	--	--	--
49	22.0	.360	.420	.470	.535	--	--	--	--
50	26.0	.420	.489	.449	.511	--	--	--	--
51	30.0	.477	.511	.405	.566	--	--	--	--
52	34.0	.516	.511	.366	.680	--	--	--	--
53	38.0	.536	.503	.466	.578	--	--	--	--
54	42.0	.571	.511	.401	.600	--	--	--	--
615	2.0	.205	.266	.301	.331	--	--	--	--
56	6.0	.017	.036	.036	.075	--	--	--	--
57	10.0	.164	.171	.149	.138	--	--	--	--
58	14.0	.257	.307	.274	.310	--	--	--	--
59	18.0	.327	.384	.314	.360	--	--	--	--
60	22.0	.380	.436	.491	.570	--	--	--	--
61	26.0	.431	.486	.491	.570	--	--	--	--
62	30.0	.471	.511	.438	.593	--	--	--	--
63	34.0	.526	.551	.395	.676	--	--	--	--
64	38.0	.565	.511	.231	.756	--	--	--	--
65	42.0	.603	.508	.044	.831	--	--	--	--
616	2.0	.218	.260	.198	.163	--	--	--	--
67	6.0	.020	.039	.039	.108	--	--	--	--
68	10.0	.151	.148	.129	.040	--	--	--	--
69	14.0	.254	.275	.276	.260	--	--	--	--
70	18.0	.317	.369	.417	.419	--	--	--	--
71	22.0	.378	.429	.463	.513	--	--	--	--
72	26.0	.430	.485	.447	.549	--	--	--	--
73	30.0	.477	.511	.347	.672	--	--	--	--
74	34.0	.526	.511	.210	.863	--	--	--	--
75	38.0	.565	.507	.133	.908	--	--	--	--
76	42.0	.603	.508	.041	.908	--	--	--	--
617	2.0	.219	.265	.216	.104	--	--	--	--
77	6.0	.003	.045	.076	.103	--	--	--	--
78	10.0	.114	.101	.089	.065	--	--	--	--
79	14.0	.211	.260	.220	.210	--	--	--	--
80	18.0	.270	.322	.344	.308	--	--	--	--
81	22.0	.330	.382	.414	.450	--	--	--	--
82	26.0	.391	.442	.437	.515	--	--	--	--
83	30.0	.438	.486	.464	.578	--	--	--	--
84	34.0	.475	.511	.326	.778	--	--	--	--
85	38.0	.513	.467	.167	.831	--	--	--	--
86	42.0	--	--	--	--	--	--	--	--

CONFIDENTIAL

NACA

TABLE 69

 $[A = -30^\circ, \theta_{\infty} = 10.0^\circ, \alpha = 0^\circ]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE						
		Mach Number						Mach Number						
		cent	chord	0.60	0.80	0.85	0.89	0.905	0.96	0.60	0.80	0.85	0.89	0.905
1	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--
2	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--	--
4	27.8	--	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.233	-0.280	-0.180	-0.130	-0.093	-0.053	-0.032	-0.012	--	--	--	--	--
7	60.0	-0.189	-0.195	-0.169	-0.139	-0.111	-0.081	-0.051	-0.021	-0.001	-0.001	-0.001	-0.001	-0.001
8	68.0	-0.123	-0.111	-0.094	-0.069	-0.050	-0.038	-0.026	-0.014	-0.003	-0.003	-0.003	-0.003	-0.003
9	75.0	-0.093	-0.083	-0.073	-0.063	-0.053	-0.043	-0.033	-0.023	-0.013	-0.013	-0.013	-0.013	-0.013
10	77.8	-0.078	-0.071	-0.066	-0.060	-0.054	-0.048	-0.042	-0.036	-0.028	-0.022	-0.020	-0.018	-0.016
11	86.0	-0.063	-0.058	-0.053	-0.048	-0.043	-0.038	-0.033	-0.028	-0.023	-0.020	-0.018	-0.016	-0.014
12	91.2	-0.055	-0.050	-0.046	-0.041	-0.037	-0.033	-0.029	-0.025	-0.021	-0.018	-0.016	-0.014	-0.012
13	93.0	-0.046	-0.041	-0.036	-0.031	-0.027	-0.023	-0.019	-0.015	-0.012	-0.010	-0.009	-0.008	-0.007
14	95.0	-0.038	-0.033	-0.029	-0.025	-0.021	-0.017	-0.014	-0.011	-0.009	-0.007	-0.006	-0.005	-0.004
15	96.0	-0.034	-0.030	-0.026	-0.022	-0.019	-0.015	-0.012	-0.010	-0.008	-0.007	-0.006	-0.005	-0.004
16	97.8	-0.029	-0.025	-0.021	-0.017	-0.014	-0.011	-0.008	-0.006	-0.005	-0.004	-0.003	-0.003	-0.002
17	98.0	-0.028	-0.025	-0.021	-0.017	-0.014	-0.011	-0.008	-0.006	-0.005	-0.004	-0.003	-0.003	-0.002
18	98.0	-0.028	-0.025	-0.021	-0.017	-0.014	-0.011	-0.008	-0.006	-0.005	-0.004	-0.003	-0.003	-0.002
19	97.8	-0.027	-0.024	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
20	97.6	-0.027	-0.024	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
21	97.5	-0.026	-0.024	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
22	96.5	-0.026	-0.024	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
23	95.5	-0.025	-0.024	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
24	95.0	-0.025	-0.024	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
25	94.0	-0.024	-0.023	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
26	93.0	-0.024	-0.023	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
27	92.0	-0.024	-0.023	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
28	91.0	-0.023	-0.023	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
29	90.0	-0.023	-0.023	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
30	89.0	-0.023	-0.023	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
31	87.8	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
32	86.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
33	85.5	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
34	85.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
35	84.5	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
36	84.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
37	83.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
38	82.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
39	81.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
40	80.0	-0.022	-0.022	-0.020	-0.016	-0.013	-0.010	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
41	77.8	-0.019	-0.017	-0.015	-0.013	-0.011	-0.009	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
42	77.5	-0.019	-0.017	-0.015	-0.013	-0.011	-0.009	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.002
43	74.2	-0.017	-0.015	-0.013	-0.011	-0.009	-0.007	-0.005	-0.004	-0.003	-0.003	-0.003	-0.003	-0.002
44	2.0	-0.114	-0.115	-0.116	-0.118	-0.120	-0.122	-0.124	-0.126	-0.128	-0.130	-0.132	-0.134	-0.136
45	6.0	-0.104	-0.105	-0.106	-0.107	-0.108	-0.109	-0.110	-0.111	-0.112	-0.113	-0.114	-0.115	-0.116
46	12.0	-0.097	-0.098	-0.099	-0.100	-0.101	-0.102	-0.103	-0.104	-0.105	-0.106	-0.107	-0.108	-0.109
47	27.8	-0.076	-0.077	-0.078	-0.079	-0.080	-0.081	-0.082	-0.083	-0.084	-0.085	-0.086	-0.087	-0.088
48	40.0	-0.067	-0.068	-0.069	-0.070	-0.071	-0.072	-0.073	-0.074	-0.075	-0.076	-0.077	-0.078	-0.079
49	49.0	-0.063	-0.064	-0.065	-0.066	-0.067	-0.068	-0.069	-0.070	-0.071	-0.072	-0.073	-0.074	-0.075
50	50.0	-0.063	-0.064	-0.065	-0.066	-0.067	-0.068	-0.069	-0.070	-0.071	-0.072	-0.073	-0.074	-0.075
51	59.0	-0.063	-0.064	-0.065	-0.066	-0.067	-0.068	-0.069	-0.070	-0.071	-0.072	-0.073	-0.074	-0.075
52	77.5	-0.059	-0.058	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047
53	77.8	-0.059	-0.058	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047
54	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
55	86.5	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
56	86.8	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
57	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
58	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
59	86.5	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
60	86.8	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
61	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
62	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
63	86.5	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
64	86.8	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
65	87.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
66	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
67	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
68	86.5	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
69	86.8	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
70	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045
71	86.0	-0.057	-0.056	-0.055	-0.054	-0.053	-0.052	-0.051	-0.050	-0.049	-0.048	-0.047	-0.	

TABLE 70

 $\Delta = -30^\circ, \delta_{\infty} = 10.0^\circ, \alpha = 2^\circ$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89	0.925	0.96
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
2	0.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.289	-0.324	-0.360	-0.387	-0.409	-0.438	--	--	--	--	--	--
7	0.0	-0.28	-0.32	-0.35	-0.38	-0.40	-0.43	--	--	--	--	--	--
8	67.5	-1.16	-1.05	-0.87	-0.79	-0.71	-0.65	--	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--
012	2.0	-1.29	-1.08	-0.79	-0.61	-0.46	-0.30	--	--	--	--	--	--
15	6.0	-0.37	-1.10	-0.79	-0.77	-0.75	-0.47	--	--	--	--	--	--
16	15.0	-0.35	-1.04	-0.78	-0.72	-0.68	-0.47	--	--	--	--	--	--
17	27.5	-0.45	-0.97	-0.71	-0.66	-0.64	-0.47	--	--	--	--	--	--
18	40.0	-0.42	-0.94	-0.70	-0.64	-0.62	-0.47	--	--	--	--	--	--
19	50.0	-0.39	-0.91	-0.68	-0.62	-0.60	-0.47	--	--	--	--	--	--
20	57.5	-0.36	-0.88	-0.65	-0.59	-0.57	-0.47	--	--	--	--	--	--
21	67.5	-0.34	-0.85	-0.62	-0.56	-0.54	-0.47	--	--	--	--	--	--
22	77.5	-0.32	-0.82	-0.59	-0.53	-0.51	-0.47	--	--	--	--	--	--
23	87.5	-0.30	-0.79	-0.56	-0.50	-0.48	-0.47	--	--	--	--	--	--
24	96.0	-0.28	-0.76	-0.53	-0.47	-0.45	-0.47	--	--	--	--	--	--
023	4.0	-0.78	-0.63	-0.49	-0.37	-0.23	-0.06	--	--	--	--	--	--
34	5.0	-0.60	-0.67	-0.51	-0.48	-0.43	-0.23	--	--	--	--	--	--
35	15.0	-0.29	-0.70	-0.51	-0.44	-0.39	-0.23	--	--	--	--	--	--
36	27.5	-0.48	-0.76	-0.58	-0.50	-0.46	-0.23	--	--	--	--	--	--
37	40.0	-0.43	-0.70	-0.54	-0.46	-0.42	-0.23	--	--	--	--	--	--
38	50.0	-0.40	-0.68	-0.51	-0.43	-0.39	-0.23	--	--	--	--	--	--
39	57.5	-0.38	-0.64	-0.48	-0.41	-0.37	-0.23	--	--	--	--	--	--
40	67.5	-0.36	-0.61	-0.45	-0.38	-0.35	-0.23	--	--	--	--	--	--
41	77.5	-0.34	-0.58	-0.43	-0.36	-0.33	-0.23	--	--	--	--	--	--
42	87.5	-0.32	-0.55	-0.41	-0.34	-0.31	-0.23	--	--	--	--	--	--
43	96.0	-0.30	-0.52	-0.39	-0.33	-0.30	-0.23	--	--	--	--	--	--
024	2.0	-0.68	-0.54	-0.46	-0.36	-0.23	-0.11	--	--	--	--	--	--
35	15.0	-0.30	-0.69	-0.51	-0.47	-0.40	-0.23	--	--	--	--	--	--
36	27.5	-0.47	-0.75	-0.61	-0.50	-0.45	-0.23	--	--	--	--	--	--
37	40.0	-0.43	-0.71	-0.56	-0.47	-0.42	-0.23	--	--	--	--	--	--
38	50.0	-0.40	-0.68	-0.53	-0.44	-0.39	-0.23	--	--	--	--	--	--
39	57.5	-0.38	-0.64	-0.50	-0.41	-0.37	-0.23	--	--	--	--	--	--
40	67.5	-0.36	-0.61	-0.47	-0.38	-0.35	-0.23	--	--	--	--	--	--
41	77.5	-0.34	-0.58	-0.44	-0.35	-0.32	-0.23	--	--	--	--	--	--
42	87.5	-0.32	-0.55	-0.41	-0.32	-0.29	-0.23	--	--	--	--	--	--
43	96.0	-0.30	-0.52	-0.39	-0.31	-0.28	-0.23	--	--	--	--	--	--
025	2.0	-0.65	-0.73	-0.56	-0.48	-0.26	-0.11	--	--	--	--	--	--
36	0.0	-0.67	-0.61	-0.47	-0.39	-0.20	-0.06	--	--	--	--	--	--
37	15.0	-0.30	-0.66	-0.50	-0.45	-0.33	-0.11	--	--	--	--	--	--
38	27.5	-0.47	-0.71	-0.56	-0.46	-0.36	-0.11	--	--	--	--	--	--
39	40.0	-0.43	-0.68	-0.53	-0.44	-0.34	-0.11	--	--	--	--	--	--
40	50.0	-0.40	-0.65	-0.50	-0.41	-0.31	-0.11	--	--	--	--	--	--
41	57.5	-0.38	-0.62	-0.48	-0.39	-0.29	-0.11	--	--	--	--	--	--
42	67.5	-0.36	-0.59	-0.45	-0.36	-0.26	-0.11	--	--	--	--	--	--
43	77.5	-0.34	-0.56	-0.42	-0.33	-0.23	-0.11	--	--	--	--	--	--
44	87.5	-0.32	-0.53	-0.39	-0.30	-0.20	-0.11	--	--	--	--	--	--
45	96.0	-0.30	-0.50	-0.37	-0.29	-0.19	-0.11	--	--	--	--	--	--
026	2.0	-0.62	-0.78	-0.57	-0.48	-0.25	-0.11	--	--	--	--	--	--
37	15.0	-0.30	-0.67	-0.51	-0.46	-0.37	-0.11	--	--	--	--	--	--
38	27.5	-0.47	-0.73	-0.58	-0.50	-0.41	-0.11	--	--	--	--	--	--
39	40.0	-0.43	-0.70	-0.65	-0.56	-0.47	-0.11	--	--	--	--	--	--
40	50.0	-0.40	-0.67	-0.62	-0.53	-0.44	-0.11	--	--	--	--	--	--
41	57.5	-0.38	-0.64	-0.59	-0.50	-0.41	-0.11	--	--	--	--	--	--
42	67.5	-0.36	-0.61	-0.56	-0.47	-0.38	-0.11	--	--	--	--	--	--
43	77.5	-0.34	-0.58	-0.53	-0.44	-0.35	-0.11	--	--	--	--	--	--
44	87.5	-0.32	-0.55	-0.50	-0.41	-0.32	-0.11	--	--	--	--	--	--
45	96.0	-0.30	-0.52	-0.47	-0.38	-0.28	-0.11	--	--	--	--	--	--
027	2.0	-0.60	-0.71	-0.56	-0.46	-0.24	-0.11	--	--	--	--	--	--
38	15.0	-0.30	-0.66	-0.50	-0.45	-0.36	-0.11	--	--	--	--	--	--
39	27.5	-0.47	-0.72	-0.57	-0.52	-0.43	-0.11	--	--	--	--	--	--
40	40.0	-0.43	-0.69	-0.54	-0.45	-0.36	-0.11	--	--	--	--	--	--
41	50.0	-0.40	-0.66	-0.51	-0.42	-0.33	-0.11	--	--	--	--	--	--
42	57.5	-0.38	-0.63	-0.48	-0.39	-0.30	-0.11	--	--	--	--	--	--
43	67.5	-0.36	-0.60	-0.45	-0.36	-0.27	-0.11	--	--	--	--	--	--
44	77.5	-0.34	-0.57	-0.42	-0.33	-0.24	-0.11	--	--	--	--	--	--
45	87.5	-0.32	-0.54	-0.39	-0.30	-0.21	-0.11	--	--	--	--	--	--
46	96.0	-0.30	-0.51	-0.36	-0.27	-0.18	-0.11	--	--	--	--	--	--
028	2.0	-0.58	-0.69	-0.54	-0.44	-0.23	-0.11	--	--	--	--	--	--
39	15.0	-0.30	-0.64	-0.48	-0.43	-0.34	-0.11	--	--	--	--	--	--
40	27.5	-0.47	-0.70	-0.55	-0.50	-0.41	-0.11	--	--	--	--	--	--
41	40.0	-0.43	-0.67	-0.52	-0.47	-0.38	-0.11	--	--	--	--	--	--
42	50.0	-0.40	-0.64	-0.49	-0.44	-0.35	-0.11	--	--	--	--	--	--
43	57.5	-0.38	-0.61	-0.46	-0.41	-0.32	-0.11	--	--	--	--	--	--
44	67.5	-0.36	-0.58	-0.43	-0.38	-0.29	-0.11	--	--	--	--	--	--
45	77.5	-0.34	-0.55	-0.40	-0.35	-0.26	-0.11	--	--	--	--	--	--
46	87.5	-0.32	-0.52	-0.38	-0.33	-0.23	-0.11	--	--	--	--	--	--
47	96.0	-0.30	-0.49	-0.35	-0.30	-0.19	-0.11	--	--	--	--	--	--
029	2.0	-0.56	-0.66	-0.51	-0.41	-0.22	-0.11	--	--	--	--	--	--
40	15.0	-0.30	-0.61	-0.45	-0.40	-0.31	-0.11	--	--	--	--	--	--
41	27.5	-0.47	-0.67	-0.52	-0.47	-0.38	-0.11	--	--	--	--	--	--
42	40.0	-0.43	-0.64	-0.49	-0.44	-0.35	-0.11	--	--	--	--	--	--
43	50.0	-0.40	-0.61	-0.47	-0.42	-0.32	-0.11	--	--	--	--	--	--
44	57.5	-0.38	-0.58	-0.44	-0.39	-0.29	-0.11	--	--	--	--	--	--
45	67.5	-0.36	-0.55	-0.41	-0.36	-0.26	-0.11	--	--	--	--	--	--
46	77.5	-0.34	-0.52	-0.38	-0.33	-0.23	-0.11	--	--	--	--	--	--
47	87.5	-0.32	-0.49	-0.35	-0.30	-0.19	-0.11	--	--	--	--	--	--
48	96.0	-0.30	-0.46	-0.32	-0.27	-0.16	-0.11	--	--	--	--	--	--
030	2.0	-0.54	-0.63	-0.48	-0.38	-0.21	-0.11	--	--	--	--	--	--
41	15.0	-0.30	-0.58	-0.42	-0.37	-0.26	-0.11	--	--	--	--	--	--
42	27.5	-0.47	-0.64	-0.49	-0.44	-0.31	-0.11	--	--	--	--	--	--
43	40.0	-0.43	-0.61	-0.48	-0.43	-0.28	-0.11	--	--	--	--	--	--
44	50.0	-0.40	-0.58	-0.45	-0.42	-0.25	-0.11	--	--	--	--	--	--
45	57.5	-0.38	-0.55	-0.42	-0.39	-0.22	-0.11	--	--	--	--	--	--
46	67.5	-0.36	-0.52	-0.39	-0.36	-0.19	-0.11	--	--	--	--		

TABLE 71

[$A = -30^\circ$, $b_m = 10.0^\circ$, $\alpha = 5^\circ$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE						LOWER SURFACE					
		cent	chord	Mach Number						Mach Number			
				0.60	0.80	0.85	0.89	0.925	0.96	0.60	0.80	0.85	0.89
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	-0.203	-0.481	-0.598	-0.709	-0.796	-0.870	--	--	--	--	--	--
7	59.0	-0.181	-0.469	-0.586	-0.694	-0.781	-0.859	-0.936	-0.990	--	--	--	--
8	67.5	-0.135	-0.387	-0.502	-0.611	-0.700	-0.770	-0.846	-0.904	--	--	--	--
9	75.0	-0.101	-0.303	-0.418	-0.527	-0.616	-0.685	-0.754	-0.813	--	--	--	--
10	87.5	-0.074	-0.226	-0.342	-0.451	-0.539	-0.608	-0.677	-0.736	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--
B12	2.0	-0.166	-0.404	-0.560	-0.678	-0.765	-0.840	-0.914	-0.970	--	--	--	--
13	8.0	-0.173	-0.414	-0.568	-0.686	-0.773	-0.849	-0.924	-0.980	--	--	--	--
14	15.0	-0.103	-0.343	-0.501	-0.618	-0.704	-0.771	-0.846	-0.901	--	--	--	--
15	27.5	-0.088	-0.263	-0.411	-0.528	-0.614	-0.681	-0.750	-0.809	--	--	--	--
16	40.0	-0.063	-0.188	-0.335	-0.452	-0.538	-0.605	-0.674	-0.733	--	--	--	--
17	50.0	-0.053	-0.171	-0.311	-0.428	-0.514	-0.581	-0.649	-0.708	--	--	--	--
18	59.0	-0.043	-0.154	-0.298	-0.415	-0.501	-0.568	-0.636	-0.695	--	--	--	--
19	67.5	-0.036	-0.137	-0.281	-0.398	-0.481	-0.548	-0.616	-0.675	--	--	--	--
20	77.5	-0.030	-0.120	-0.264	-0.381	-0.464	-0.531	-0.599	-0.658	--	--	--	--
21	86.0	.000	-0.103	-0.246	-0.363	-0.446	-0.513	-0.582	-0.641	--	--	--	--
22	95.3	--	--	--	--	--	--	--	--	--	--	--	--
C23	2.0	-1.166	-1.087	-0.899	-0.693	-0.494	-0.297	-0.098	-0.001	--	--	--	--
24	8.0	-0.895	-1.087	-0.905	-0.709	-0.508	-0.308	-0.108	-0.008	--	--	--	--
25	15.0	-0.790	-1.060	-0.905	-0.704	-0.503	-0.303	-0.103	-0.003	--	--	--	--
26	27.5	-0.618	-0.929	-0.911	-0.708	-0.508	-0.308	-0.108	-0.008	--	--	--	--
27	40.0	-0.518	-0.811	-0.898	-0.708	-0.508	-0.308	-0.108	-0.008	--	--	--	--
28	50.0	-0.448	-0.731	-0.845	-0.708	-0.508	-0.308	-0.108	-0.008	--	--	--	--
29	59.0	-0.379	-0.659	-0.794	-0.708	-0.508	-0.308	-0.108	-0.008	--	--	--	--
30	67.5	-0.330	-0.601	-0.743	-0.708	-0.508	-0.308	-0.108	-0.008	--	--	--	--
31	75.0	-0.285	-0.523	-0.675	-0.708	-0.508	-0.308	-0.108	-0.008	--	--	--	--
32	86.0	-0.103	-0.044	-0.076	-0.137	-0.184	-0.231	-0.278	-0.325	--	--	--	--
33	95.3	--	--	--	--	--	--	--	--	--	--	--	--
D34	2.0	-1.166	-1.080	-0.811	-0.617	-0.412	-0.203	-0.001	-0.001	--	--	--	--
35	15.0	-0.687	-1.094	-0.813	-0.618	-0.413	-0.208	-0.008	-0.001	--	--	--	--
36	27.5	-0.588	-0.964	-0.845	-0.640	-0.435	-0.235	-0.100	-0.008	--	--	--	--
37	40.0	-0.501	-0.868	-0.908	-0.707	-0.507	-0.307	-0.107	-0.007	--	--	--	--
38	50.0	-0.436	-0.746	-0.861	-0.707	-0.507	-0.307	-0.107	-0.007	--	--	--	--
39	59.0	-0.365	-0.649	-0.767	-0.707	-0.507	-0.307	-0.107	-0.007	--	--	--	--
40	67.5	-0.318	-0.598	-0.716	-0.707	-0.507	-0.307	-0.107	-0.007	--	--	--	--
41	77.5	-0.278	-0.548	-0.697	-0.707	-0.507	-0.307	-0.107	-0.007	--	--	--	--
42	87.5	-0.099	-0.039	-0.011	-0.064	-0.134	-0.202	-0.269	-0.337	--	--	--	--
43	94.2	.014	.041	.061	.084	.101	.124	.147	.170	--	--	--	--
F44	2.0	-1.177	-1.138	-0.917	-0.717	-0.516	-0.316	-0.116	-0.016	--	--	--	--
45	8.0	-0.799	-1.121	-0.909	-0.709	-0.509	-0.309	-0.109	-0.009	--	--	--	--
46	15.0	-0.700	-1.064	-0.917	-0.717	-0.517	-0.317	-0.117	-0.017	--	--	--	--
47	27.5	-0.517	-0.906	-0.811	-0.611	-0.411	-0.211	-0.101	-0.011	--	--	--	--
48	40.0	-0.426	-0.795	-0.911	-0.711	-0.511	-0.311	-0.111	-0.011	--	--	--	--
49	50.0	-0.357	-0.669	-0.842	-0.711	-0.511	-0.311	-0.111	-0.011	--	--	--	--
50	59.0	-0.300	-0.565	-0.705	-0.711	-0.511	-0.311	-0.111	-0.011	--	--	--	--
51	67.5	-0.275	-0.529	-0.680	-0.711	-0.511	-0.311	-0.111	-0.011	--	--	--	--
52	77.5	-0.231	-0.495	-0.640	-0.711	-0.511	-0.311	-0.111	-0.011	--	--	--	--
53	86.0	-0.191	-0.451	-0.591	-0.711	-0.511	-0.311	-0.111	-0.011	--	--	--	--
54	94.2	.010	.056	.094	.130	.167	.203	.239	.275	--	--	--	--
F55	2.0	-1.168	-1.183	-0.910	-0.710	-0.510	-0.310	-0.110	-0.010	--	--	--	--
56	8.0	-0.813	-1.191	-0.916	-0.716	-0.516	-0.316	-0.116	-0.016	--	--	--	--
57	15.0	-0.713	-1.123	-0.917	-0.717	-0.517	-0.317	-0.117	-0.017	--	--	--	--
58	27.5	-0.516	-0.917	-0.918	-0.718	-0.518	-0.318	-0.118	-0.018	--	--	--	--
59	40.0	-0.427	-0.797	-0.919	-0.719	-0.519	-0.319	-0.119	-0.019	--	--	--	--
60	50.0	-0.361	-0.664	-0.837	-0.919	-0.719	-0.519	-0.319	-0.119	--	--	--	--
61	59.0	-0.313	-0.527	-0.706	-0.837	-0.719	-0.520	-0.320	-0.120	--	--	--	--
62	67.5	-0.281	-0.484	-0.636	-0.706	-0.719	-0.520	-0.320	-0.120	--	--	--	--
63	77.5	-0.247	-0.449	-0.598	-0.636	-0.719	-0.520	-0.320	-0.120	--	--	--	--
64	86.0	-0.209	-0.408	-0.560	-0.598	-0.719	-0.520	-0.320	-0.120	--	--	--	--
65	94.2	.040	.080	.120	.171	.221	.271	.321	.371	--	--	--	--
H79	2.0	-1.099	-0.959	-0.719	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
77	8.0	-0.769	-1.004	-0.719	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
78	15.0	-0.734	-0.937	-0.719	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
79	27.5	-0.534	-0.798	-0.607	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
80	40.0	-0.443	-0.666	-0.571	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
81	50.0	-0.354	-0.539	-0.560	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
82	59.0	-0.310	-0.496	-0.467	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
83	67.5	-0.275	-0.451	-0.432	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
84	77.5	-0.240	-0.406	-0.342	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
85	86.0	-0.197	-0.367	-0.312	-0.519	-0.319	-0.119	-0.019	-0.009	--	--	--	--
86	94.2	.042	.082	.132	.171	.210	.250	.290	.330	--	--	--	--

CONFIDENTIAL

NACA

CONFIDENTIAL

TABLE 72

 $\left[\Delta = -30^\circ, b_{\alpha_1} = 10.0^\circ, \alpha = 7^\circ \right]$

CONFIDENTIAL

Tube	Per-cent chord	UPPER SURFACE						LOWER SURFACE						
		Mach Number						Mach Number						
		0.60	0.80	0.85	0.90	0.925	0.95		0.60	0.80	0.85	0.90	0.925	0.95
1	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--
2	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--	--
6	52.5	-0.506	-0.466	-0.466	-0.460	-0.472	-0.468	--	--	--	--	--	--	--
7	58.0	-0.410	-0.360	-0.360	-0.361	-0.361	-0.361	--	--	--	--	--	--	--
8	67.5	-0.361	-0.307	-0.307	-0.305	-0.305	-0.305	--	--	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--	--	--	--
12	8.0	-0.651	-0.543	-0.507	-0.493	-0.483	-0.470	--	--	--	--	--	--	--
13	16.0	-0.657	-0.574	-0.521	-0.471	-0.467	-0.457	--	--	--	--	--	--	--
14	27.5	-0.718	-0.549	-0.506	-0.457	-0.466	-0.477	--	--	--	--	--	--	--
15	40.0	-0.738	-0.579	-0.527	-0.561	-0.571	-0.561	--	--	--	--	--	--	--
16	52.5	-0.700	-0.605	-0.551	-0.571	-0.581	-0.581	--	--	--	--	--	--	--
17	58.0	-0.636	-0.616	-0.618	-0.577	-0.584	-0.588	--	--	--	--	--	--	--
18	59.0	-0.546	-0.611	-0.605	-0.593	-0.594	-0.586	--	--	--	--	--	--	--
19	67.5	-0.493	-0.596	-0.600	-0.592	-0.590	-0.580	--	--	--	--	--	--	--
20	77.5	-0.384	-0.417	-0.404	-0.401	-0.395	-0.398	--	--	--	--	--	--	--
21	86.0	-0.287	-0.402	-0.449	-0.466	-0.505	-0.605	--	--	--	--	--	--	--
22	95.3	--	--	--	--	--	--	--	--	--	--	--	--	--
23	2.0	-1.304	-1.419	-1.269	-1.056	-0.880	-0.750	--	--	--	--	--	--	--
24	8.0	-1.260	-1.357	-1.161	-1.065	-0.939	-0.813	--	--	--	--	--	--	--
25	16.0	-0.969	-1.096	-1.081	-0.993	-0.921	-0.812	--	--	--	--	--	--	--
26	27.5	-0.681	-0.739	-0.775	-0.844	-0.889	-0.860	--	--	--	--	--	--	--
27	40.0	-0.546	-0.606	-0.610	-0.610	-0.604	-0.601	--	--	--	--	--	--	--
28	52.5	-0.408	-0.461	-0.461	-0.461	-0.461	-0.461	--	--	--	--	--	--	--
29	53.0	-0.408	-0.461	-0.461	-0.461	-0.461	-0.461	--	--	--	--	--	--	--
30	58.0	-0.297	-0.360	-0.361	-0.370	-0.400	-0.405	--	--	--	--	--	--	--
31	77.5	-0.213	-0.329	-0.378	-0.365	-0.326	-0.311	--	--	--	--	--	--	--
32	86.0	-0.129	-0.261	-0.338	-0.305	-0.390	-0.466	--	--	--	--	--	--	--
33	95.3	--	--	--	--	--	--	--	--	--	--	--	--	--
34	2.0	-1.906	-1.443	-1.187	-0.981	-0.825	-0.696	--	--	--	--	--	--	--
35	16.0	-1.007	-1.318	-1.054	-1.009	-0.920	-0.768	--	--	--	--	--	--	--
36	27.5	-0.720	-1.208	-1.065	-1.018	-0.920	-0.811	--	--	--	--	--	--	--
37	40.0	-0.567	-0.669	-0.669	-0.669	-0.669	-0.669	--	--	--	--	--	--	--
38	50.0	-0.473	-0.543	-0.543	-0.543	-0.543	-0.543	--	--	--	--	--	--	--
39	56.0	-0.379	-0.406	-0.406	-0.406	-0.406	-0.406	--	--	--	--	--	--	--
40	67.5	--	--	--	--	--	--	--	--	--	--	--	--	--
41	77.5	-0.172	-0.193	-0.190	-0.185	-0.185	-0.185	--	--	--	--	--	--	--
42	87.5	-0.047	-0.108	-0.177	-0.262	-0.323	-0.340	--	--	--	--	--	--	--
43	94.2	-0.056	-0.076	-0.160	-0.267	-0.307	-0.323	--	--	--	--	--	--	--
44	2.0	-1.917	-1.490	-1.200	-1.046	-0.909	-0.817	--	--	--	--	--	--	--
45	6.0	-1.856	-1.390	-1.106	-1.013	-0.975	-0.856	--	--	--	--	--	--	--
46	15.0	-1.364	-1.392	-1.204	-1.075	-0.951	-0.808	--	--	--	--	--	--	--
47	27.5	-0.705	-1.269	-1.110	-1.019	-0.912	-0.812	--	--	--	--	--	--	--
48	40.0	-0.581	-0.609	-0.609	-0.609	-0.609	-0.609	--	--	--	--	--	--	--
49	50.0	-0.487	-0.547	-0.547	-0.547	-0.547	-0.547	--	--	--	--	--	--	--
50	63.0	-0.380	-0.630	-0.630	-0.631	-0.631	-0.631	--	--	--	--	--	--	--
51	71.0	-0.280	-0.503	-0.603	-0.603	-0.603	-0.603	--	--	--	--	--	--	--
52	79.0	-0.188	-0.311	-0.404	-0.500	-0.600	-0.618	--	--	--	--	--	--	--
53	89.1	-0.060	-0.160	-0.267	-0.367	-0.467	-0.567	--	--	--	--	--	--	--
54	88.5	-0.066	-0.118	-0.218	-0.318	-0.418	-0.518	--	--	--	--	--	--	--
55	2.0	-1.654	-1.466	-1.136	-1.102	-0.926	--	--	--	--	--	--	--	--
56	6.0	-1.504	-1.318	-1.021	-1.116	-0.954	--	--	--	--	--	--	--	--
57	15.0	-1.283	-1.418	-1.216	-1.084	-0.944	--	--	--	--	--	--	--	--
58	27.5	-0.739	-1.307	-1.190	-1.034	-0.926	--	--	--	--	--	--	--	--
59	40.0	-0.510	-1.116	-1.042	-1.042	-0.982	--	--	--	--	--	--	--	--
60	52.5	-0.416	-0.500	-0.500	-0.500	-0.500	--	--	--	--	--	--	--	--
61	58.0	-0.307	-0.478	-0.478	-0.478	-0.478	--	--	--	--	--	--	--	--
62	67.5	-0.214	-0.343	-0.343	-0.343	-0.343	--	--	--	--	--	--	--	--
63	77.5	-0.119	-0.234	-0.314	-0.399	-0.499	-0.596	--	--	--	--	--	--	--
64	84.6	-0.073	-0.130	-0.186	-0.265	-0.346	-0.426	--	--	--	--	--	--	--
65	2.0	-1.857	-1.517	-1.256	-1.076	-0.908	--	--	--	--	--	--	--	--
66	6.0	-1.748	-1.426	-1.163	-1.035	-0.874	--	--	--	--	--	--	--	--
67	15.0	-1.428	-1.304	-1.090	-1.029	-0.918	--	--	--	--	--	--	--	--
68	27.5	-0.793	-1.309	-1.190	-1.069	-0.965	--	--	--	--	--	--	--	--
69	40.0	-0.561	-1.267	-1.180	-1.068	-0.979	--	--	--	--	--	--	--	--
70	50.0	-0.416	-0.502	-0.502	-0.502	-0.502	--	--	--	--	--	--	--	--
71	59.0	-0.137	-0.246	-0.324	-0.404	-0.494	-0.591	--	--	--	--	--	--	--
72	67.5	-0.056	-0.186	-0.286	-0.386	-0.486	-0.587	--	--	--	--	--	--	--
73	77.5	-0.265	-0.271	-0.305	-0.305	-0.305	--	--	--	--	--	--	--	--
74	87.5	-0.120	-0.174	-0.170	-0.216	-0.216	-0.204	--	--	--	--	--	--	--
75	94.6	--	--	--	--	--	--	--	--	--	--	--	--	--
76	2.0	-1.403	-1.426	-1.152	-1.096	-0.803	--	--	--	--	--	--	--	--
77	6.0	-1.616	-1.358	-1.163	-1.035	-0.874	--	--	--	--	--	--	--	--
78	15.0	-0.749	-1.237	-1.063	-0.983	-0.821	--	--	--	--	--	--	--	--
79	27.5	-0.627	-0.760	-0.804	-0.877	-0.796	--	--	--	--	--	--	--	--
80	40.0	-0.554	-0.676	-0.716	-0.716	-0.676	--	--	--	--	--	--	--	--
81	50.0	-0.501	-0.699	-0.699	-0.676	-0.677	--	--	--	--	--	--	--	--
82	55.0	-0.426	-0.541	-0.541	-0.541	-0.541	--	--	--	--	--	--	--	--
83	67.5	-0.306	-0.436	-0.436	-0.436	-0.436	--	--	--	--	--	--	--	--
84	74.3	-0.265	-0.399	-0.399	-0.399	-0.399	--	--	--	--	--	--	--	--
85	84.3	--	--	--	--	--	--	--	--	--	--	--	--	--

CONFIDENTIAL



TABLE 73

[$\alpha = -45^\circ$, $b_{\infty} = -10.0^\circ$, $s = -c$]

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE						
		cent	chord	Mach Number					Mach Number				
				.60	.80	.90	.95	.975	.60	.80	.90	.95	.975
A 1	2.0	--	--	--	--	--	--	--	--	--	--	--	--
6	6.0	--	--	--	--	--	--	--	--	--	--	--	--
2	15.0	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	--	--	--	--	--	--	--	--	--	--	--	--
7	59.0	-0.08	--	-0.093	-0.096	-0.099	-0.100	-0.101	--	--	--	--	--
8	67.5	-0.09	-0.095	-0.096	-0.096	-0.096	-0.096	-0.096	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--
11	95.0	--	--	--	--	--	--	--	--	--	--	--	--
612	6.0	--	--	--	--	--	--	--	--	--	--	--	--
13	6.0	--	--	--	--	--	--	--	--	--	--	--	--
14	15.0	--	--	--	--	--	--	--	--	--	--	--	--
15	27.5	-0.135	-0.176	-0.205	-0.221	-0.227	-0.231	-0.237	--	--	--	--	--
16	40.0	-0.154	-0.194	-0.219	-0.24	-0.248	-0.252	-0.256	--	--	--	--	--
17	50.0	-0.151	-0.185	-0.209	-0.227	-0.237	-0.241	-0.246	--	--	--	--	--
18	59.0	-0.120	-0.156	-0.182	-0.207	-0.226	-0.238	-0.246	--	--	--	--	--
19	67.5	-0.092	-0.110	-0.123	-0.142	-0.159	-0.174	-0.186	--	--	--	--	--
20	77.5	-0.06	-0.09	-0.105	-0.129	-0.149	-0.166	-0.183	--	--	--	--	--
21	86.0	-0.03	-0.05	-0.072	-0.102	-0.126	-0.146	-0.163	--	--	--	--	--
22	95.5	--	--	--	--	--	--	--	--	--	--	--	--
625	2.0	.418	.452	.463	.473	.478	.482	.486	--	--	--	--	--
24	6.0	.175	.202	.216	.226	.235	.241	.248	--	--	--	--	--
25	15.0	-0.003	-0.005	-0.003	.006	.017	.026	.036	--	--	--	--	--
26	27.5	-0.103	-0.138	-0.155	-0.179	-0.193	-0.207	-0.221	--	--	--	--	--
27	40.0	-0.144	-0.174	-0.194	-0.214	-0.231	-0.247	-0.263	--	--	--	--	--
28	50.0	-0.141	-0.176	-0.193	-0.212	-0.232	-0.249	-0.266	--	--	--	--	--
29	59.0	-0.139	-0.164	-0.187	-0.207	-0.227	-0.246	-0.266	--	--	--	--	--
30	67.5	-0.094	-0.115	-0.137	-0.160	-0.180	-0.200	-0.223	--	--	--	--	--
31	77.5	-0.059	-0.075	-0.100	-0.133	-0.161	-0.191	-0.211	--	--	--	--	--
32	86.0	-0.028	-0.055	-0.074	-0.104	-0.136	-0.168	-0.198	--	--	--	--	--
33	95.5	--	--	--	--	--	--	--	--	--	--	--	--
634	2.0	.329	.344	.347	.348	.342	.342	.342	--	--	--	--	--
35	15.0	-0.017	-0.001	.002	.006	.011	.017	.026	--	--	--	--	--
36	27.5	-0.076	-0.089	-0.094	-0.096	-0.101	-0.107	-0.112	--	--	--	--	--
37	40.0	-0.131	-0.151	-0.165	-0.170	-0.181	-0.181	-0.181	--	--	--	--	--
38	50.0	-0.139	-0.163	-0.183	-0.191	-0.191	-0.191	-0.191	--	--	--	--	--
39	59.0	-0.103	-0.125	-0.143	-0.150	-0.160	-0.169	-0.179	--	--	--	--	--
40	67.5	-0.067	-0.086	-0.107	-0.121	-0.131	-0.141	-0.151	--	--	--	--	--
41	77.5	-0.029	-0.046	-0.067	-0.081	-0.091	-0.101	-0.111	--	--	--	--	--
42	86.0	.001	-0.019	-0.031	-0.043	-0.053	-0.063	-0.073	--	--	--	--	--
43	94.2	.039	.017	.024	.034	.044	.054	.064	--	--	--	--	--
644	2.0	.171	.197	.207	.217	.221	.227	.231	--	--	--	--	--
45	6.0	.140	.152	.147	.150	.155	.155	.155	--	--	--	--	--
46	15.0	.000	.001	-.007	-.005	-.003	-.003	-.003	--	--	--	--	--
47	27.5	-0.072	-0.081	-0.089	-0.089	-0.094	-0.094	-0.094	--	--	--	--	--
48	40.0	-0.118	-0.131	-0.145	-0.150	-0.164	-0.164	-0.164	--	--	--	--	--
49	50.0	-0.122	-0.130	-0.135	-0.139	-0.145	-0.149	-0.155	--	--	--	--	--
50	59.0	-0.109	-0.124	-0.138	-0.145	-0.152	-0.158	-0.164	--	--	--	--	--
51	67.5	-0.074	-0.086	-0.098	-0.108	-0.114	-0.124	-0.134	--	--	--	--	--
52	77.5	-0.041	-0.051	-0.062	-0.072	-0.074	-0.084	-0.093	--	--	--	--	--
53	86.5	.049	.028	.038	.042	.048	.058	.068	--	--	--	--	--
54	95.5	.015	.011	.009	.007	.006	.006	.006	--	--	--	--	--
655	2.0	--	--	--	--	--	--	--	--	--	--	--	--
56	6.0	.150	.159	.197	.160	.163	.163	.163	--	--	--	--	--
57	15.0	.014	.014	.007	.008	.009	.009	.009	--	--	--	--	--
58	27.5	-0.095	-0.104	-0.109	-0.114	-0.118	-0.123	-0.128	--	--	--	--	--
59	40.0	-0.108	-0.108	-0.114	-0.126	-0.131	-0.136	-0.141	--	--	--	--	--
60	50.0	-0.094	-0.104	-0.117	-0.122	-0.128	-0.132	-0.138	--	--	--	--	--
61	59.0	-0.068	-0.079	-0.090	-0.091	-0.098	-0.108	-0.117	--	--	--	--	--
62	67.5	-0.043	-0.054	-0.068	-0.070	-0.070	-0.077	-0.087	--	--	--	--	--
63	77.5	-0.017	-0.027	-0.034	-0.037	-0.037	-0.042	-0.052	--	--	--	--	--
64	86.5	.017	.007	.022	.022	.023	.023	.026	--	--	--	--	--
656	2.0	.197	.210	.211	.210	.210	.210	.210	--	--	--	--	--
66	6.0	.152	.171	.169	.169	.169	.169	.169	--	--	--	--	--
67	15.0	.036	.037	.034	.036	.037	.037	.037	--	--	--	--	--
68	27.5	.049	.040	.051	.050	.050	.051	.051	--	--	--	--	--
69	40.0	.074	.068	.065	.068	.068	.068	.068	--	--	--	--	--
70	50.0	.048	.077	.089	.090	.090	.090	.090	--	--	--	--	--
71	59.0	.035	.041	.053	.054	.055	.056	.056	--	--	--	--	--
72	67.5	.013	.025	.041	.042	.042	.042	.042	--	--	--	--	--
73	77.5	.185	.154	.152	.149	.147	.147	.147	--	--	--	--	--
74	86.0	.024	.016	.006	.006	.006	.006	.006	--	--	--	--	--
75	95.5	.060	.049	.050	.051	.051	.051	.051	--	--	--	--	--
76	2.0	.305	.303	.331	.342	.340	.340	.340	--	--	--	--	--
77	6.0	.127	.141	.148	.161	.163	.164	.164	--	--	--	--	--
78	15.0	.018	.024	.027	.036	.038	.038	.038	--	--	--	--	--
79	27.5	-.043	-.047	-.052	-.047	-.047	-.047	-.047	--	--	--	--	--
80	40.0	-.079	-.093	-.106	-.106	-.115	-.115	-.115	--	--	--	--	--
81	50.0	-.062	-.082	-.097	-.107	-.111	-.117	-.117	--	--	--	--	--
82	59.0	-.048	-.068	-.082	-.092	-.098	-.106	-.106	--	--	--	--	--
83	67.5	-.016	-.020	-.029	-.039	-.049	-.050	-.050	--	--	--	--	--
84	77.5	.051	.050	.046	.047	.047	.047	.047	--	--	--	--	--
85	86.5	.042	.043	.041	.037	.039	.040	.040	--	--	--	--	--
86	95.5	--	--	--	--	--	--	--	--	--	--	--	--

CONFIDENTIAL

NACA

TABLE 7a

 $[A = -45^\circ, b_{\infty} = -10.0^\circ, \alpha = 2^\circ]$

CONFIDENTIAL

Tube No.	Per- cent chord	UPPER SURFACE						LOWER SURFACE					
		Mach Number						Mach Number					
		0.60	0.80	0.89	0.925	0.96			0.60	0.80	0.89	0.925	0.96
1	2.0	---	---	---	---	---			86	3.0	---	---	---
2	6.0	---	---	---	---	---			87	10.0	---	---	---
3	15.0	---	---	---	---	---			88	45.0	---	---	---
4	27.5	---	---	---	---	---			89	41.0	---	---	---
5	45.0	---	---	---	---	---			90	52.5	---	---	---
6	50.0	-0.096	-0.091	-0.090	-0.085	-0.086			91	62.5	-0.031	-0.031	-0.032
7	55.0	-0.087	-0.082	-0.080	-0.077	-0.082			92	72.5	-0.008	-0.005	-0.004
8	77.5	-0.067	-0.062	-0.059	-0.057	-0.062			93	86.0	0.000	0.000	0.012
9	87.5	---	---	---	---	---			94	94.0	---	---	---
10	89.6	---	---	---	---	---							
11	96.0	---	---	---	---	---							
B12	2.0	---	---	---	---	---			95	3.0	---	---	---
13	6.0	---	---	---	---	---			96	10.0	---	---	---
14	15.0	---	---	---	---	---			97	45.0	---	---	---
15	27.5	-0.337	-0.290	-0.281	-0.276	-0.289			98	41.0	-0.048	-0.045	-0.045
16	45.0	-0.217	-0.214	-0.215	-0.212	-0.219			99	52.5	-0.073	-0.068	-0.068
17	50.0	-0.193	-0.188	-0.183	-0.183	-0.188			100	62.5	-0.058	-0.051	-0.051
18	55.0	-0.165	-0.172	-0.168	-0.165	-0.171			101	72.5	-0.031	-0.026	-0.026
19	67.5	-0.101	-0.116	-0.099	-0.094	-0.101			102	86.3	-0.036	-0.033	-0.033
20	77.5	-0.060	-0.079	-0.070	-0.070	-0.076			103	94.5	-0.077	-0.079	-0.089
21	86.0	.017	.017	.020	.027	.021							
22	95.3	---	---	---	---	---							
G23	2.0	-.293	-.293	-.293	-.293	-.293							
24	6.0	-0.16	-0.16	-0.16	-0.16	-0.16							
25	15.0	-0.16	-0.16	-0.16	-0.16	-0.16							
26	27.5	-0.112	-0.103	-0.103	-0.103	-0.103							
27	45.0	-0.077	-0.077	-0.077	-0.077	-0.077							
28	50.0	-0.082	-0.081	-0.081	-0.081	-0.081							
29	55.0	-0.191	-0.200	-0.206	-0.206	-0.207							
30	67.5	-0.133	-0.146	-0.138	-0.138	-0.139							
31	77.5	-0.083	-0.090	-0.084	-0.084	-0.085							
32	86.0	.012	.007	.015	.014	.015							
33	95.3	---	---	---	---	---							
D34	2.0	-0.357	-0.354	-0.354	-0.357	-0.367							
35	6.0	-0.297	-0.339	-0.363	-0.350	-0.361							
36	15.0	-0.275	-0.277	-0.277	-0.276	-0.275							
37	27.5	-0.274	-0.267	-0.267	-0.267	-0.267							
38	45.0	-0.294	-0.294	-0.293	-0.293	-0.294							
39	50.0	-0.186	-0.196	-0.206	-0.206	-0.205							
40	67.5	-0.110	-0.110	-0.110	-0.110	-0.110							
41	77.5	-0.056	-0.064	-0.074	-0.077	-0.080							
42	87.5	-0.031	-0.033	-0.034	-0.037	-0.037							
43	94.2	.021	.006	.030	.030	.045							
H44	2.0	-0.307	-0.312	-0.312	-0.312	-0.312							
45	6.0	-0.284	-0.309	-0.323	-0.323	-0.320							
46	15.0	-0.273	-0.294	-0.313	-0.313	-0.313							
47	27.5	-0.254	-0.267	-0.277	-0.277	-0.277							
48	45.0	-0.254	-0.267	-0.271	-0.271	-0.274							
49	50.0	-0.265	-0.265	-0.265	-0.265	-0.265							
50	55.0	-0.199	-0.203	-0.206	-0.206	-0.206							
51	67.5	-0.129	-0.163	-0.163	-0.163	-0.166							
52	77.5	-0.073	-0.101	-0.126	-0.130	-0.173							
53	86.0	.036	.037	.017	.017	.012							
54	95.3	.004	.009	.006	.006	.031							
F55	2.0	---	---	---	---	---							
56	6.0	-0.254	-0.281	-0.299	-0.292	-0.290							
57	15.0	-0.243	-0.271	-0.290	-0.299	-0.294							
58	27.5	-0.230	-0.264	-0.281	-0.291	-0.291							
59	45.0	-0.261	-0.270	-0.270	-0.273	-0.276							
60	50.0	-0.195	-0.214	-0.232	-0.232	-0.235							
61	55.0	-0.149	-0.160	-0.170	-0.170	-0.170							
62	67.5	-0.083	-0.104	-0.124	-0.124	-0.128							
63	77.5	.013	.008	.005	.005	.029	.013						
64	86.0	.014	.005	.004	.004	.008							
G65	2.0	-0.198	-0.199	-0.198	-0.198	-0.193							
66	6.0	-0.207	-0.216	-0.226	-0.226	-0.211							
67	15.0	-0.197	-0.203	-0.204	-0.204	-0.203							
68	27.5	-0.191	-0.193	-0.194	-0.194	-0.191							
69	45.0	-0.191	-0.191	-0.191	-0.191	-0.191							
70	50.0	-0.150	-0.150	-0.150	-0.150	-0.150							
71	55.0	-0.111	-0.110	-0.110	-0.110	-0.110							
72	67.5	-0.017	-0.017	-0.027	-0.027	-0.020							
73	77.5	.069	.087	.099	.099	.091							
74	87.2	.043	.056	.079	.079	.064							
75	96.8	.087	.083	.091	.093	.093							
H76	2.0	-0.168	-0.171	-0.171	-0.171	-0.173							
77	6.0	-0.149	-0.150	-0.150	-0.150	-0.151							
78	15.0	-0.172	-0.175	-0.178	-0.178	-0.179							
79	27.5	-0.164	-0.163	-0.164	-0.164	-0.161							
80	45.0	-0.159	-0.170	-0.170	-0.170	-0.166							
81	50.0	-0.126	-0.126	-0.127	-0.127	-0.126							
82	59.0	-0.093	-0.107	-0.124	-0.124	-0.120							
83	67.5	-0.043	-0.053	-0.064	-0.064	-0.075							
84	86.3	.036	.031	.026	.026	.016							
85	94.2	.070	.077	.053	.053	.026							

CONFIDENTIAL

NACA

TABLE 75

 $[A = -45^\circ, \delta_{\alpha_0} = -10.0^\circ, \alpha = 7^\circ]$

CONFIDENTIAL

Tube	Ver-	Mach Number	UPPER SURFACE					LOWER SURFACE						
			ant	chord	0.60	0.80	0.89	0.925	0.96	0.60	0.80	0.89	0.925	0.96
					0.60	0.80	0.89	0.925	0.96	0.60	0.80	0.89	0.925	0.96
A 1	2.0	---												
2	6.0	---												
3	15.0	---												
4	27.5	---												
5	40.0	---												
6	52.5	---												
7	59.0	-0.105	-0.309	-0.483	-0.479	-0.559	-0.557							
8	67.5	-0.095	-0.298	-0.391	-0.458	-0.547	-0.547							
9	77.5	---												
10	87.5	---												
11	96.0	---												
612	8.0	---												
13	6.0	---												
14	13.0	---												
15	27.5	-0.069	-0.115	-0.195	-0.261	-0.376	-0.376							
16	40.0	-0.066	-0.104	-0.176	-0.247	-0.368	-0.368							
17	50.0	-0.104	-0.186	-0.267	-0.349	-0.512	-0.512							
18	59.0	-0.110	-0.181	-0.271	-0.342	-0.507	-0.507							
19	67.5	-0.113	-0.185	-0.270	-0.340	-0.501	-0.501							
20	77.5	-0.110	-0.181	-0.268	-0.331	-0.497	-0.497							
21	87.5	-0.095	-0.169	-0.257	-0.326	-0.488	-0.488							
22	96.3	---												
623	2.0	-0.003	-0.050	-0.100	-0.191	-0.310	-0.310							
24	6.0	-0.013	-0.050	-0.100	-0.191	-0.310	-0.310							
25	15.0	-0.013	-0.057	-0.107	-0.197	-0.313	-0.313							
26	27.5	-0.008	-0.046	-0.096	-0.186	-0.304	-0.304							
27	40.0	-0.006	-0.047	-0.097	-0.187	-0.305	-0.305							
28	50.0	-0.006	-0.047	-0.097	-0.187	-0.305	-0.305							
29	59.0	-0.006	-0.046	-0.096	-0.186	-0.304	-0.304							
30	67.5	-0.006	-0.047	-0.097	-0.187	-0.305	-0.305							
31	77.5	-0.016	-0.046	-0.096	-0.185	-0.304	-0.304							
32	87.5	-0.008	-0.047	-0.097	-0.186	-0.305	-0.305							
33	96.3	---												
634	2.0	-1.499	-1.173	-1.218	-1.139	-1.031								
35	6.0	-1.499	-1.173	-1.203	-1.100	-1.003								
36	15.0	-1.497	-1.174	-1.201	-1.074	-0.96								
37	27.5	-1.497	-1.174	-1.200	-1.069	-0.950								
38	40.0	-1.497	-1.174	-1.201	-1.067	-0.949								
39	50.0	-1.497	-1.174	-1.201	-1.067	-0.948								
40	67.5	-1.497	-1.174	-1.201	-1.067	-0.948								
41	77.5	-1.497	-1.174	-1.201	-1.067	-0.948								
42	87.5	-0.066	-0.129	-0.136	-0.109	-0.139	-0.139							
43	96.3	---												
644	2.0	-1.100	-1.081	-1.068	-1.040	-1.046								
45	6.0	-1.100	-1.081	-1.068	-1.040	-1.046								
46	15.0	-1.063	-1.078	-1.050	-1.007	-0.946								
47	27.5	-1.063	-1.078	-1.050	-1.007	-0.946								
48	40.0	-1.076	-1.089	-1.054	-0.956	-0.958								
49	50.0	-1.076	-1.089	-1.054	-0.956	-0.958								
50	67.5	-1.076	-1.089	-1.054	-0.956	-0.958								
51	77.5	-1.076	-1.089	-1.054	-0.956	-0.958								
52	87.5	-0.151	-0.187	-0.196	-0.160	-0.207	-0.207							
53	96.3	-0.068	-0.100	-0.107	-0.086	-0.125	-0.125							
653	2.0	---												
55	6.0	-0.127	-0.141	-0.120	-0.088	-0.086								
56	15.0	-0.127	-0.141	-0.120	-0.088	-0.086								
57	27.5	-0.127	-0.141	-0.120	-0.088	-0.086								
58	40.0	-0.127	-0.141	-0.120	-0.088	-0.086								
59	50.0	-0.127	-0.141	-0.120	-0.088	-0.086								
60	60.0	-0.127	-0.141	-0.120	-0.088	-0.086								
61	67.5	-0.127	-0.141	-0.120	-0.088	-0.086								
62	77.5	-0.127	-0.141	-0.120	-0.088	-0.086								
63	87.5	-0.091	-0.092	-0.091	-0.091	-0.091	-0.091							
64	96.3	---												
655	2.0	-1.265	-1.111	-1.118	-1.094	-0.989								
66	6.0	-1.265	-1.110	-1.109	-1.093	-0.986								
67	15.0	-1.264	-1.109	-1.108	-1.092	-0.985								
68	27.5	-1.264	-1.109	-1.108	-1.092	-0.985								
69	40.0	-1.267	-1.112	-1.109	-1.095	-0.986								
70	50.0	-1.267	-1.112	-1.109	-1.095	-0.986								
71	59.0	-1.267	-1.112	-1.109	-1.095	-0.986								
72	67.5	-1.267	-1.112	-1.109	-1.095	-0.986								
73	77.5	-1.267	-1.112	-1.109	-1.095	-0.986								
74	87.2	-0.074	-0.086	-0.093	-0.094	-0.096	-0.096							
75	96.8	-0.038	-0.049	-0.051	-0.051	-0.051	-0.051							
676	2.0	-1.177	-1.107	-1.119	-1.015	-0.917								
77	6.0	-1.171	-1.110	-1.107	-1.093	-0.907								
78	15.0	-1.170	-1.109	-1.107	-1.092	-0.906								
79	27.5	-1.170	-1.109	-1.107	-1.092	-0.906								
80	40.0	-1.170	-1.109	-1.107	-1.092	-0.906								
81	50.0	-1.170	-1.109	-1.107	-1.092	-0.906								
82	59.0	-1.170	-1.109	-1.107	-1.092	-0.906								
83	67.5	-1.170	-1.109	-1.107	-1.092	-0.906								
84	86.3	-0.000	-0.015	-0.001	-0.001	-0.019	-0.019							
85	94.2	-0.031	-0.001	-0.002	-0.002	-0.019	-0.019							
116	2.0	-1.277	-1.207	-1.214	-1.115	-0.917								
151	10.0	-1.281	-1.211	-1.218	-1.119	-0.917								
152	23.0	-1.281	-1.211	-1.218	-1.119	-0.917								
133	41.0	-1.281	-1.211	-1.218	-1.119	-0.917								
144	41.0	-1.281	-1.211	-1.218	-1.119	-0.917								
145	52.5	-1.281	-1.211	-1.218	-1.119	-0.917								
146	62.5	-1.281	-1.211	-1.218	-1.119	-0.917								
147	72.5	-1.281	-1.211	-1.218	-1.119	-0.917								
148	84.0	-1.281	-1.211	-1.218	-1.119	-0.917								
149	94.0	-1.281	-1.211	-1.218	-1.119	-0.917								
150	3.0	-1.216	-1.114	-1.121	-0.917	-0.917								
151	10.0	-1.216	-1.114	-1.121	-0.917	-0.917								
152	23.0	-1.216	-1.114	-1.121	-0.917	-0.917								
133	41.0	-1.216	-1.114	-1.121	-0.917	-0.917								
144	41.0	-1.216	-1.114	-1.121	-0.917	-0.917								
145	52.5	-1.216	-1.114	-1.121	-0.917	-0.917								
146	62.5	-1.216	-1.114	-1.121	-0.917	-0.917								
147	72.5	-1.216	-1.114	-1.121	-0.917	-0.917								
148	84.0	-1.216	-1.114	-1.121	-0.917	-0.917								
149	94.0	-1.216	-1.114	-1.										

TABLE 76

 $\{ \Lambda = -45^\circ, \delta_{\alpha_0} = 9.8^\circ, \alpha = -2^\circ \}$

CONFIDENTIAL

Tube	Percent chord	UPPER SURFACE					LOWER SURFACE				
		Mach Number					Mach Number				
		0.60	0.60	0.69	0.825	0.96	0.60	0.60	0.69	0.825	0.96
A 1	2.0	--	--	--	--	--	--	--	--	--	--
3	8.0	--	--	--	--	--	--	--	--	--	--
4	15.0	--	--	--	--	--	--	--	--	--	--
5	27.0	--	--	--	--	--	--	--	--	--	--
6	50.0	--	--	--	--	--	--	--	--	--	--
7	59.0	-0.06	-0.101	-0.102	-0.092	-0.231	--	--	--	--	--
8	87.5	-0.06	-0.06	-0.05	-0.057	-0.107	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--
B12	2.0	--	--	--	--	--	--	--	--	--	--
13	8.0	--	--	--	--	--	--	--	--	--	--
14	15.0	--	-0.160	-0.261	-0.341	-0.383	--	--	--	--	--
15	27.0	-0.176	-0.210	-0.259	-0.328	-0.404	--	--	--	--	--
16	40.0	-0.165	-0.196	-0.230	-0.294	-0.361	--	--	--	--	--
17	50.0	-0.165	-0.196	-0.230	-0.294	-0.361	--	--	--	--	--
18	59.0	-0.165	-0.196	-0.230	-0.294	-0.361	--	--	--	--	--
19	77.5	-0.06	-0.118	-0.124	-0.134	-0.200	--	--	--	--	--
20	77.5	-0.028	-0.046	-0.061	-0.074	-0.105	--	--	--	--	--
21	86.0	.028	.016	.016	.021	.076	--	--	--	--	--
22	95.3	--	--	--	--	--	--	--	--	--	--
C23	2.0	.111	.198	.340	.356	.368	--	--	--	--	--
3	8.0	.098	.166	.208	.218	.230	--	--	--	--	--
4	15.0	.069	.071	.104	.116	.139	--	--	--	--	--
5	27.0	.145	.179	.205	.224	.232	--	--	--	--	--
6	50.0	.188	.223	.269	.317	.346	--	--	--	--	--
7	59.0	.179	.205	.267	.317	.356	--	--	--	--	--
8	77.5	.156	.187	.231	.321	.349	--	--	--	--	--
9	87.5	.109	.129	.160	.240	.287	--	--	--	--	--
10	77.5	.061	.061	.106	.150	.258	--	--	--	--	--
11	77.5	.061	.061	.106	.150	.258	--	--	--	--	--
12	86.0	.061	.012	.009	.061	.160	--	--	--	--	--
13	95.3	--	--	--	--	--	--	--	--	--	--
D24	2.0	.179	.250	.258	.279	.290	--	--	--	--	--
3	15.0	.066	.068	.077	.091	.093	--	--	--	--	--
4	27.0	.127	.146	.161	.171	.201	--	--	--	--	--
5	40.0	.175	.200	.230	.236	.270	--	--	--	--	--
6	50.0	.176	.203	.236	.246	.286	--	--	--	--	--
7	59.0	.119	.165	.205	.267	.325	--	--	--	--	--
8	77.5	.156	.187	.231	.321	.349	--	--	--	--	--
9	87.5	.077	.083	.101	.126	.119	--	--	--	--	--
10	87.5	.085	.085	.091	.090	.077	--	--	--	--	--
11	95.3	.031	.016	.006	.036	.094	--	--	--	--	--
E25	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.035	.034	.029	.028	.028	--	--	--	--	--
4	15.0	.038	.048	.113	.123	.134	--	--	--	--	--
5	27.0	.199	.186	.201	.219	.219	--	--	--	--	--
6	40.0	.140	.140	.160	.180	.190	--	--	--	--	--
7	50.0	.200	.242	.270	.276	.276	--	--	--	--	--
8	59.0	.188	.211	.229	.274	.274	--	--	--	--	--
9	67.5	.135	.154	.153	.169	.169	--	--	--	--	--
10	77.5	.076	.094	.094	.095	.095	--	--	--	--	--
11	86.5	.051	.036	.035	.025	.009	--	--	--	--	--
12	95.3	.011	.008	.008	.009	.009	--	--	--	--	--
F26	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.042	.040	.038	.034	.034	--	--	--	--	--
4	15.0	.049	.047	.047	.046	.046	--	--	--	--	--
5	27.0	.161	.166	.174	.211	.211	--	--	--	--	--
6	50.0	.215	.248	.268	.298	.298	--	--	--	--	--
7	59.0	.203	.229	.279	.278	.278	--	--	--	--	--
8	67.5	.180	.210	.249	.284	.284	--	--	--	--	--
9	77.5	.135	.154	.153	.169	.169	--	--	--	--	--
10	87.5	.076	.094	.094	.095	.095	--	--	--	--	--
11	95.3	.051	.036	.035	.025	.009	--	--	--	--	--
G27	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.049	.047	.047	.046	.046	--	--	--	--	--
4	15.0	.056	.054	.054	.053	.053	--	--	--	--	--
5	27.0	.168	.174	.174	.211	.211	--	--	--	--	--
6	50.0	.221	.254	.284	.319	.319	--	--	--	--	--
7	59.0	.208	.239	.278	.313	.313	--	--	--	--	--
8	67.5	.163	.192	.231	.266	.266	--	--	--	--	--
9	77.5	.118	.147	.147	.147	.147	--	--	--	--	--
10	87.5	.077	.095	.095	.094	.094	--	--	--	--	--
11	95.3	.052	.037	.036	.026	.009	--	--	--	--	--
H28	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.056	.054	.054	.053	.053	--	--	--	--	--
4	15.0	.063	.061	.061	.060	.060	--	--	--	--	--
5	27.0	.170	.176	.176	.213	.213	--	--	--	--	--
6	50.0	.224	.257	.287	.322	.322	--	--	--	--	--
7	59.0	.211	.242	.281	.316	.316	--	--	--	--	--
8	67.5	.166	.195	.234	.269	.269	--	--	--	--	--
9	77.5	.121	.150	.149	.149	.149	--	--	--	--	--
10	87.5	.076	.094	.094	.093	.093	--	--	--	--	--
11	95.3	.051	.036	.035	.025	.009	--	--	--	--	--
I29	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.063	.061	.061	.060	.060	--	--	--	--	--
4	15.0	.070	.068	.068	.067	.067	--	--	--	--	--
5	27.0	.177	.183	.183	.220	.220	--	--	--	--	--
6	50.0	.227	.260	.290	.325	.325	--	--	--	--	--
7	59.0	.214	.245	.284	.319	.319	--	--	--	--	--
8	67.5	.169	.198	.237	.272	.272	--	--	--	--	--
9	77.5	.124	.153	.152	.152	.152	--	--	--	--	--
10	87.5	.076	.094	.094	.093	.093	--	--	--	--	--
11	95.3	.051	.036	.035	.025	.009	--	--	--	--	--
J30	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.070	.068	.068	.067	.067	--	--	--	--	--
4	15.0	.077	.075	.075	.074	.074	--	--	--	--	--
5	27.0	.184	.190	.190	.227	.227	--	--	--	--	--
6	50.0	.231	.264	.294	.329	.329	--	--	--	--	--
7	59.0	.218	.249	.288	.323	.323	--	--	--	--	--
8	67.5	.173	.192	.231	.266	.266	--	--	--	--	--
9	77.5	.129	.158	.157	.157	.157	--	--	--	--	--
10	87.5	.076	.094	.094	.093	.093	--	--	--	--	--
11	95.3	.051	.036	.035	.025	.009	--	--	--	--	--
K31	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.077	.075	.075	.074	.074	--	--	--	--	--
4	15.0	.084	.082	.082	.081	.081	--	--	--	--	--
5	27.0	.191	.197	.197	.234	.234	--	--	--	--	--
6	50.0	.238	.271	.301	.336	.336	--	--	--	--	--
7	59.0	.225	.256	.295	.330	.330	--	--	--	--	--
8	67.5	.180	.209	.248	.283	.283	--	--	--	--	--
9	77.5	.136	.165	.164	.164	.164	--	--	--	--	--
10	87.5	.076	.094	.094	.093	.093	--	--	--	--	--
11	95.3	.051	.036	.035	.025	.009	--	--	--	--	--
L32	2.0	.212	.317	.384	.311	.311	--	--	--	--	--
3	8.0	.084	.082	.082	.081	.081	--	--	--	--	--
4	15.0	.091	.089	.089	.088	.088	--	--	--	--	--
5	27.0	.198	.204	.204	.241	.241	--	--	--	--	--
6	50.0	.245	.278	.308	.343	.343	--	--	--	--	--
7	59.0	.232	.263	.292	.327	.327	--	--	--	--	--
8	67.5	.187	.206	.245	.280	.280	--	--	--	--	--
9	77.5	.143	.172	.171	.171	.171	--	--	--	--	--
10	87.5	.076	.094	.094	.093	.093	--	--	--	--	--
11	95.3	.051	.036	.035	.025	.009	--	--	--	--	--
M33	2.0										

TABLE T7

$$\left[\Delta = -45^\circ, \theta_m = 0.8^\circ, \alpha = 2^\circ \right]$$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE							
		cent	chord	Mach Number	0.60	0.80	0.89	0.925	0.96	0.60	0.80	0.89	0.925	0.96
1	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--
2	4.0	--	--	--	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--	--	--	--
6	50.0	--	--	--	--	--	--	--	--	--	--	--	--	--
7	59.0	-0.107	-0.04	-0.064	-0.064	-0.064	-0.145	--	--	--	--	--	--	--
8	67.5	-0.074	-0.067	-0.066	-0.061	-0.061	-0.078	--	--	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--	--	--	--
11	90.0	--	--	--	--	--	--	--	--	--	--	--	--	--
12	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--
13	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--
14	15.0	--	--	--	--	--	--	--	--	--	--	--	--	--
15	27.5	-0.25	-0.23	-0.29	-0.29	-0.29	-0.70	--	--	--	--	--	--	--
16	40.0	-0.25	-0.21	-0.20	-0.19	-0.19	-0.60	--	--	--	--	--	--	--
17	50.0	-0.25	-0.19	-0.19	-0.19	-0.19	-0.54	--	--	--	--	--	--	--
18	60.0	-0.25	-0.19	-0.19	-0.19	-0.19	-0.48	--	--	--	--	--	--	--
19	77.5	-0.116	-0.120	-0.089	-0.089	-0.089	-0.25	--	--	--	--	--	--	--
20	77.5	-0.066	-0.062	-0.062	-0.062	-0.062	-0.05	--	--	--	--	--	--	--
21	86.0	.011	.014	.020	.020	.020	.021	--	--	--	--	--	--	--
22	95.5	--	--	--	--	--	--	--	--	--	--	--	--	--
23	2.0	-0.915	-0.601	-0.705	-0.705	-0.705	-0.504	--	--	--	--	--	--	--
24	6.0	-0.50	-0.40	-0.40	-0.40	-0.40	-0.40	--	--	--	--	--	--	--
25	15.0	-0.494	-0.494	-0.494	-0.494	-0.494	-0.494	--	--	--	--	--	--	--
26	27.5	-0.494	-0.494	-0.494	-0.494	-0.494	-0.494	--	--	--	--	--	--	--
27	40.0	-0.313	-0.313	-0.313	-0.313	-0.313	-0.313	--	--	--	--	--	--	--
28	50.0	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	--	--	--	--	--	--	--
29	59.0	-0.215	-0.215	-0.215	-0.215	-0.215	-0.215	--	--	--	--	--	--	--
30	67.5	-0.150	-0.162	-0.193	-0.193	-0.193	-0.01	--	--	--	--	--	--	--
31	77.5	-0.091	-0.104	-0.107	-0.107	-0.107	-0.155	--	--	--	--	--	--	--
32	86.0	-0.005	-0.005	-0.001	-0.001	-0.001	-0.025	--	--	--	--	--	--	--
33	95.5	--	--	--	--	--	--	--	--	--	--	--	--	--
34	2.0	-0.593	-0.600	-0.594	-0.594	-0.594	-0.420	--	--	--	--	--	--	--
35	15.0	-0.50	-0.50	-0.495	-0.495	-0.495	-0.495	--	--	--	--	--	--	--
36	27.5	-0.50	-0.50	-0.498	-0.498	-0.498	-0.498	--	--	--	--	--	--	--
37	40.0	-0.321	-0.321	-0.321	-0.321	-0.321	-0.321	--	--	--	--	--	--	--
38	50.0	-0.26	-0.26	-0.26	-0.26	-0.26	-0.26	--	--	--	--	--	--	--
39	59.0	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	--	--	--	--	--	--	--
40	67.5	--	--	--	--	--	--	--	--	--	--	--	--	--
41	77.5	-0.104	-0.109	-0.120	-0.120	-0.120	-0.176	--	--	--	--	--	--	--
42	86.0	-0.04	-0.04	-0.04	-0.04	-0.04	-0.099	--	--	--	--	--	--	--
43	94.5	-0.012	-0.005	-0.004	-0.004	-0.004	-0.031	--	--	--	--	--	--	--
44	2.0	-0.505	-0.600	-0.590	-0.590	-0.590	-0.473	--	--	--	--	--	--	--
45	6.0	-0.497	-0.507	-0.506	-0.506	-0.506	-0.496	--	--	--	--	--	--	--
46	15.0	-0.513	-0.505	-0.505	-0.505	-0.505	-0.476	--	--	--	--	--	--	--
47	27.5	-0.337	-0.413	-0.477	-0.477	-0.477	-0.473	--	--	--	--	--	--	--
48	40.0	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	--	--	--	--	--	--	--
49	50.0	-0.201	-0.201	-0.201	-0.201	-0.201	-0.201	--	--	--	--	--	--	--
50	59.0	-0.165	-0.165	-0.165	-0.165	-0.165	-0.165	--	--	--	--	--	--	--
51	67.5	-0.167	-0.193	-0.195	-0.195	-0.195	-0.005	--	--	--	--	--	--	--
52	77.5	-0.101	-0.117	-0.120	-0.120	-0.120	-0.046	--	--	--	--	--	--	--
53	86.0	.013	.020	.016	.016	.016	.004	--	--	--	--	--	--	--
54	95.5	.005	.001	.000	.000	.000	.031	--	--	--	--	--	--	--
55	2.0	-0.503	-0.503	-0.503	-0.503	-0.503	-0.283	--	--	--	--	--	--	--
56	6.0	-0.497	-0.507	-0.506	-0.506	-0.506	-0.496	--	--	--	--	--	--	--
57	15.0	-0.506	-0.504	-0.505	-0.505	-0.505	-0.497	--	--	--	--	--	--	--
58	27.5	-0.30	-0.444	-0.444	-0.444	-0.444	-0.473	--	--	--	--	--	--	--
59	40.0	-0.21	-0.27	-0.303	-0.303	-0.303	-0.406	--	--	--	--	--	--	--
60	50.0	-0.216	-0.216	-0.216	-0.216	-0.216	-0.402	--	--	--	--	--	--	--
61	59.0	-0.204	-0.204	-0.204	-0.204	-0.204	-0.397	--	--	--	--	--	--	--
62	67.5	-0.212	-0.216	-0.216	-0.216	-0.216	-0.393	--	--	--	--	--	--	--
63	76.5	-0.164	-0.164	-0.164	-0.164	-0.164	-0.389	--	--	--	--	--	--	--
64	84.5	.010	.005	.012	.012	.012	.013	--	--	--	--	--	--	--
65	2.0	-0.513	-0.505	-0.505	-0.505	-0.505	-0.283	--	--	--	--	--	--	--
66	6.0	-0.491	-0.507	-0.503	-0.503	-0.503	-0.477	--	--	--	--	--	--	--
67	15.0	-0.506	-0.504	-0.505	-0.505	-0.505	-0.477	--	--	--	--	--	--	--
68	27.5	-0.276	-0.321	-0.360	-0.360	-0.360	-0.470	--	--	--	--	--	--	--
69	40.0	-0.193	-0.193	-0.193	-0.193	-0.193	-0.465	--	--	--	--	--	--	--
70	50.0	-0.204	-0.204	-0.204	-0.204	-0.204	-0.460	--	--	--	--	--	--	--
71	59.0	-0.194	-0.194	-0.194	-0.194	-0.194	-0.459	--	--	--	--	--	--	--
72	67.5	-0.174	-0.174	-0.174	-0.174	-0.174	-0.454	--	--	--	--	--	--	--
73	77.5	-0.175	-0.187	-0.200	-0.200	-0.200	-0.454	--	--	--	--	--	--	--
74	87.2	-0.113	-0.109	-0.070	-0.070	-0.070	-0.089	--	--	--	--	--	--	--
75	96.8	.005	.003	.016	.016	.016	.011	--	--	--	--	--	--	--
76	2.0	-0.507	-0.507	-0.504	-0.504	-0.504	-0.283	--	--	--	--	--	--	--
77	6.0	-0.497	-0.507	-0.503	-0.503	-0.503	-0.477	--	--	--	--	--	--	--
78	15.0	-0.506	-0.504	-0.505	-0.505	-0.505	-0.477	--	--	--	--	--	--	--
79	27.5	-0.271	-0.321	-0.360	-0.360	-0.360	-0.470	--	--	--	--	--	--	--
80	40.0	-0.192	-0.192	-0.192	-0.192	-0.192	-0.465	--	--	--	--	--	--	--
81	50.0	-0.203	-0.203	-0.203	-0.203	-0.203	-0.460	--	--	--	--	--	--	--
82	59.0	-0.193	-0.193	-0.193	-0.193	-0.193	-0.459	--	--	--	--	--	--	--
83	67.5	-0.173	-0.173	-0.200	-0.200	-0.200	-0.454	--	--	--	--	--	--	--
84	76.3	-0.140	-0.173	-0.200	-0.200	-0.200	-0.454	--	--	--	--	--	--	--
85	84.2	-0.071	-0.100	-0.121	-0.120	-0.120	-0.135	--	--	--	--	--	--	--

CONFIDENTIAL

TABLE 78

 $\left[\Delta = -45^\circ, \delta_{\infty} = 9.8^\circ, \alpha = 7^\circ \right]$

CONFIDENTIAL

Tube	Per-	UPPER SURFACE					LOWER SURFACE				
		cent	chord	Mech Number					Mech Number		
				0.60	0.80	0.89	0.925	0.96	0.60	0.80	0.89
A 1	2.0	--	--	--	--	--	--	--	--	--	--
2	4.0	--	--	--	--	--	--	--	--	--	--
3	15.0	--	--	--	--	--	--	--	--	--	--
4	27.5	--	--	--	--	--	--	--	--	--	--
5	40.0	--	--	--	--	--	--	--	--	--	--
6	50.0	--	--	--	--	--	--	--	--	--	--
7	59.0	-0.165	-0.202	-0.359	-0.436	-0.517	--	--	--	--	--
8	67.5	-0.136	-0.166	-0.363	-0.448	-0.532	--	--	--	--	--
9	77.5	--	--	--	--	--	--	--	--	--	--
10	87.5	--	--	--	--	--	--	--	--	--	--
11	96.0	--	--	--	--	--	--	--	--	--	--
B12	2.0	--	--	--	--	--	--	--	--	--	--
13	6.0	--	--	--	--	--	--	--	--	--	--
14	15.0	--	--	--	--	--	--	--	--	--	--
15	27.5	-0.665	-0.646	-0.667	-0.722	--	--	--	--	--	--
16	40.0	-0.611	-0.640	-0.647	-0.729	--	--	--	--	--	--
17	50.0	-0.501	-0.604	-0.611	-0.653	-0.709	--	--	--	--	--
18	59.0	-0.496	-0.581	-0.572	-0.645	-0.704	--	--	--	--	--
19	67.5	-0.498	-0.585	-0.574	-0.646	-0.706	--	--	--	--	--
20	77.5	-0.202	-0.361	-0.444	-0.511	-0.586	--	--	--	--	--
21	86.0	-0.120	-0.235	-0.303	-0.383	-0.409	--	--	--	--	--
22	95.5	--	--	--	--	--	--	--	--	--	--
C23	2.0	-0.496	-0.591	-0.598	-0.707	-0.793	--	--	--	--	--
24	6.0	-0.551	-0.539	-0.591	-0.706	-0.813	--	--	--	--	--
25	15.0	-0.765	-0.697	-0.723	-0.763	-0.873	--	--	--	--	--
26	27.5	-0.671	-0.689	-0.783	-0.735	-0.840	--	--	--	--	--
27	40.0	-0.586	-0.577	-0.687	-0.695	-0.786	--	--	--	--	--
28	50.0	-0.439	-0.447	-0.564	-0.621	-0.706	--	--	--	--	--
29	59.0	-0.360	-0.400	-0.509	-0.578	-0.651	--	--	--	--	--
30	67.5	-0.297	-0.366	-0.465	-0.508	-0.547	--	--	--	--	--
31	77.5	-0.236	-0.307	-0.413	-0.417	-0.487	--	--	--	--	--
32	86.0	-0.140	-0.206	-0.306	-0.375	-0.428	--	--	--	--	--
33	95.5	--	--	--	--	--	--	--	--	--	--
D34	2.0	-1.477	-1.158	-1.115	-1.164	-1.077	--	--	--	--	--
35	15.0	-0.675	-0.610	-0.724	-1.076	-0.986	--	--	--	--	--
36	27.5	-0.513	-0.696	-0.618	-1.003	-0.979	--	--	--	--	--
37	40.0	-0.481	-0.503	-0.575	-0.832	-0.739	--	--	--	--	--
38	50.0	-0.409	-0.489	-0.451	-0.759	-0.666	--	--	--	--	--
39	59.0	-0.295	-0.395	-0.390	-0.593	-0.413	--	--	--	--	--
40	67.5	-0.167	-0.204	-0.216	-0.325	-0.176	--	--	--	--	--
41	77.5	-0.108	-0.150	-0.176	-0.245	-0.176	--	--	--	--	--
42	86.0	-0.078	-0.114	-0.113	-0.193	-0.083	--	--	--	--	--
43	94.5	--	--	--	--	--	--	--	--	--	--
E44	2.0	-1.431	-1.182	-1.136	-1.195	-1.119	--	--	--	--	--
45	6.0	-1.482	-1.170	-1.192	-1.159	-1.049	--	--	--	--	--
46	15.0	-1.126	-1.146	-1.166	-1.080	-0.967	--	--	--	--	--
47	27.5	-0.877	-1.176	-1.146	-1.130	-0.976	--	--	--	--	--
48	40.0	-0.810	-1.177	-1.146	-1.130	-0.976	--	--	--	--	--
49	50.0	-0.749	-1.153	-1.167	-1.174	-0.969	--	--	--	--	--
50	59.0	-0.693	-1.077	-1.177	-1.181	-0.969	--	--	--	--	--
51	67.5	-0.293	-0.307	-0.317	-0.297	-0.290	--	--	--	--	--
52	77.5	-0.139	-0.178	-0.131	-0.180	-0.209	--	--	--	--	--
53	86.0	-0.068	-0.105	-0.102	-0.126	-0.142	--	--	--	--	--
54	94.5	-0.072	-0.101	-0.096	-0.112	-0.135	--	--	--	--	--
F55	2.0	--	--	--	--	--	--	--	--	--	--
56	6.0	-1.736	-1.178	-1.279	-1.187	-1.041	--	--	--	--	--
57	15.0	-1.777	-1.176	-1.181	-1.067	-0.970	--	--	--	--	--
58	27.5	-1.595	-1.170	-1.098	-1.004	-0.940	--	--	--	--	--
59	40.0	-1.436	-1.185	-1.079	-0.931	-0.904	--	--	--	--	--
60	50.0	-1.348	-1.116	-1.046	-0.941	-0.755	--	--	--	--	--
61	59.0	-0.987	-1.330	-1.299	-1.049	-0.441	--	--	--	--	--
62	67.5	-0.226	-0.266	-0.271	-0.116	-0.132	--	--	--	--	--
63	86.0	-0.081	-0.128	-0.146	-0.166	-0.180	--	--	--	--	--
64	94.5	-0.082	-0.098	-0.129	-0.155	-0.156	--	--	--	--	--
G65	2.0	-1.359	-1.192	-1.197	-1.162	-1.049	--	--	--	--	--
66	6.0	-1.468	-1.182	-1.189	-1.094	-1.006	--	--	--	--	--
67	15.0	-1.641	-1.031	-1.121	-0.991	-0.893	--	--	--	--	--
68	27.5	-1.450	-1.120	-1.071	-0.919	-0.816	--	--	--	--	--
69	40.0	-1.020	-1.090	-0.986	-0.966	-0.805	--	--	--	--	--
70	50.0	-0.951	-1.111	-1.015	-0.946	-0.845	--	--	--	--	--
71	59.0	-0.871	-1.041	-0.979	-0.944	-0.846	--	--	--	--	--
72	67.5	-0.233	-0.282	-0.288	-0.347	-0.340	--	--	--	--	--
73	77.5	-0.150	-0.206	-0.231	-0.259	-0.237	--	--	--	--	--
74	87.5	-0.133	-0.115	-0.161	-0.170	-0.160	--	--	--	--	--
75	96.8	-0.150	-0.071	-0.133	-0.150	-0.148	--	--	--	--	--
H76	2.0	-1.559	-1.163	-1.209	-1.079	-0.971	--	--	--	--	--
77	6.0	-1.606	-1.199	-1.070	-0.966	-0.977	--	--	--	--	--
78	15.0	-2.218	-1.179	-1.078	-0.782	-0.743	--	--	--	--	--
79	27.5	-1.441	-1.041	-0.947	-0.704	-0.728	--	--	--	--	--
80	40.0	-1.356	-1.046	-0.967	-0.767	-0.778	--	--	--	--	--
81	50.0	-1.246	-0.987	-0.947	-0.719	-0.708	--	--	--	--	--
82	59.0	-1.151	-0.983	-0.946	-0.746	-0.738	--	--	--	--	--
83	67.5	-0.989	-0.989	-0.945	-0.771	-0.737	--	--	--	--	--
84	87.5	-0.303	-0.669	-0.619	-0.555	-0.470	--	--	--	--	--
85	94.2	-0.293	-0.779	-0.503	-0.296	-0.265	--	--	--	--	--

CONFIDENTIAL

NACA

CONFIDENTIAL Loads, Steady Aerodynamic - Wings 	1.9.1.1  Mach Number Effects - Complete Wings 	CONFIDENTIAL 1.2.2.6 
A Compilation of the Pressures Measured on a Wing and Aileron with Various Amounts of Sweep in the Langley 8-Foot High-Speed Tunnel. By Richard T. Whitcomb	NACA RM No. 18A30a April 1948	NACA RM No. 18A30a April 1948
CONFIDENTIAL 	CONFIDENTIAL 	CONFIDENTIAL 
		

CONFIDENTIAL

Abstract

A compilation is made in tabular form of all the pressures measured on a thin high-aspect-ratio wing and aileron with no sweep and with 30° and 45° of sweepback and sweepforward at high subsonic Mach numbers in the Langley 8-foot high-speed tunnel.

CONFIDENTIAL

Abstract

A compilation is made in tabular form of all the pressures measured on a thin high-aspect-ratio wing and aileron with no sweep and with 30° and 45° of sweepback and sweepforward at high subsonic Mach numbers in the Langley 8-foot high-speed tunnel.

CONFIDENTIAL

NACA RM No. 18A30a

REEL - C
783
A.T.I.

20895

FD-101 FORM 63 (13 MAR 47)

C - 2 - 6 - 42

ATI- 20895

Whitcomb, R. T.

DIVISION: Aerodynamics (2)

ORIG. AGENCY NUMBER

SECTION: Wings and Airfoils (6)

RM LSA30a

CROSS REFERENCES: Ailerons - Aerodynamics (03201); Wings

REVISION

Swept-back - Aerodynamics (99305.2); Wings, Swept-forward - Aerodynamics (99307.3);*

AUTHOR(S)

AMER. TITLE: A compilation of the pressures measured on a wing and aileron with various amounts of sweep in the Langley 8-foot high-speed tunnel

FORGN. TITLE:

ORIGINATING AGENCY: National Advisory Committee for Aeronautics, Washington, D. C.

TRANSLATION:

COUNTRY	LANGUAGE	FORGN.CLASG	U. S.CLASS.	DATE	PAGES	ILLUS.	FEATURES
U.S.	Eng.			Apr '48	87		tables, drwg

ABSTRACT

A compilation is presented, in tabular form, of pressures measured on the surface of a thin high-aspect-ratio wing at high subsonic Mach numbers. The wings possessed no sweep and 30° and 45° of sweepback and sweepforward. Each table presents the pressure coefficients obtained for the upper and lower surfaces of the wing with a given sweep, aileron deflections, and angle of attack at the various test Mach numbers. Only the results relatively free of wind-tunnel chocking effects have been included.

* Pressures - Measurement (73564)

NOTE: Requests for copies of this report must be addressed to: N.A.C.A.,
Washington, D. C.

T-2, HQ., AIR MATERIEL COMMAND

AIR TECHNICAL INDEX

WRIGHT FIELD, OHIO, USAAF

WL-A-21 MAR 6 1948

Whitcomb, R. T.

DIVISION: Aerodynamics (2)

SECTION: Wings and Airfoils (6)

CROSS REFERENCES: Ailsrons - Aerodynamics (03201); Wings

Swept-back - Aerodynamics (99305.2); Wings, Swept-forward - Aerodynamics (99307.3);*

AUTHOR(S)

RM LSA30a

REVISI

AMER. TITLE: A compilation of the pressures measured on a wing and aileron with various amounts of sweep in the Langley 8-foot high-speed tunnel

FORG'N. TITLE:

ORIGINATING AGENCY: National Advisory Committee for Aeronautics, Washington, D. C.

TRANSLATION:

COUNTRY	LANGUAGE	FORG'N.CLASS	U. S.CLASS	DATE	PAGES	ILLUS.	FEATURES
U.S.	Eng.		Conf'd'l	Apr '48	87		tables, drwg

ABSTRACT

A compilation is presented, in tabular form, of pressures measured on the surfaces of a thin high-aspect-ratio wing at high subsonic Mach numbers. The wings possessed no sweep and 30° and 45° of sweepback and sweepforward. Each table presents the pressure coefficients obtained for the upper and lower surfaces of the wing with a given sweep, aileron deflections, and angle of attack at the various test Mach numbers. Only the results relatively free of wind-tunnel chocking effects have been included.

* Pressure - Measurement (73564)

NOTE: Requests for copies of this report must be addressed to: N.A.C.A.
Washington, D. C.

T-2, HQ., AIR MATERIEL COMMAND

AD-B807 153



U Auth: NACA Research Abstracts No 56
dd 13 Jan 54

- ② P11, P13
- ③ * swept forward wings
* swept back wings
* Ailerons
Wind Tunnels